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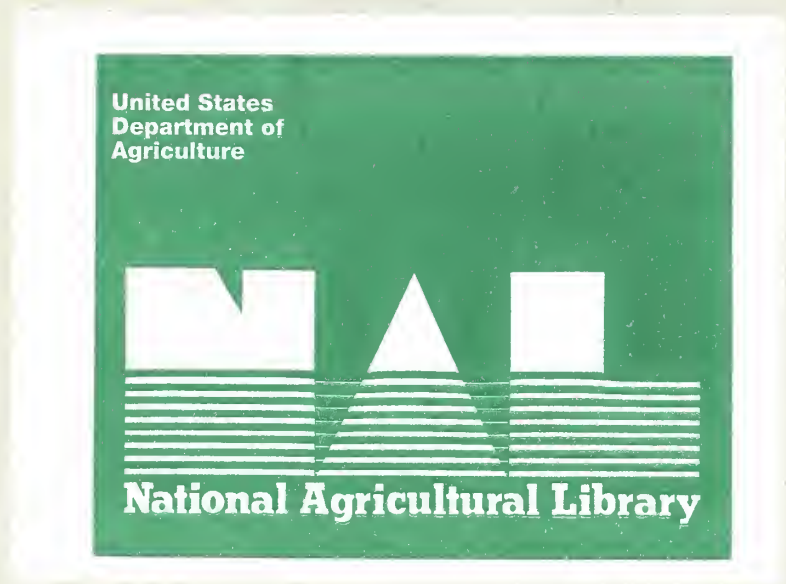


# Trail and Commercial Pack Stock Management In the Ansel Adams and John Muir Wildernesses

**Final  
Environmental Impact Statement**

**Volume 3 – Appendices**





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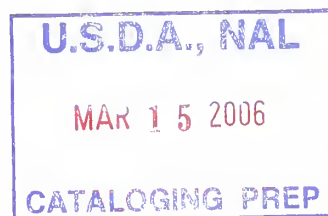
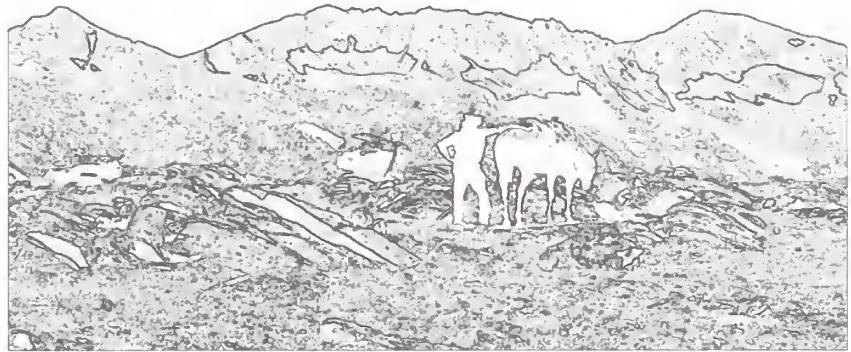


# Inyo and Sierra National Forests



## Trail and Commercial Pack Stock Management in the Ansel Adams and John Muir Wildernesses

### Final Environmental Impact Statement



VOLUME 3 OF 3

APPENDICES

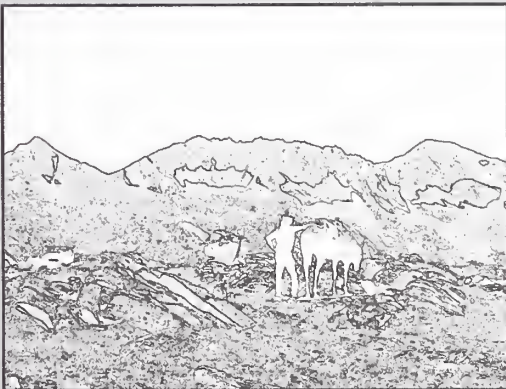
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## Appendix A Glossary





## Appendix A – Glossary

**Allowable Use:** The degree of utilization considered desirable and attainable on various specific parts of a grazing area or zone considering the present resource condition, management objectives, and management level.

**Area of Potential Effect (APE):** The geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking (36 CFR 800.16[d]).

**Beneficial uses:** The natural and human uses of surface water defined in the Water Quality Control Board Basin Plans. These beneficial uses must be maintained and water quality objectives and best management practices (BMPs) are designed to protect beneficial uses.

**Best Management Practices (BMP):** A practice or combination of practices that are the most effective and practical means of preventing or reducing water pollution from non-point sources.

**Biological Assessment:** A “Biological Evaluation” specifically prepared for formal consultation with the U. S. Fish and Wildlife Service when a “May Affect” determination is concluded for a project on any Federally listed Threatened or Endangered Species per the legal requirements found in Section 7 of the Federal Endangered Species Act of 1976 as amended.

**Biological Evaluation:** A documented Forest Service review of Forest Service programs or activities in sufficient detail to determine how an action or proposed action may affect any Federally listed threatened, endangered, or proposed species, or Forest Service sensitive species.

**Candidate Species:** Plant and animal taxa considered for possible addition to the Federal list of Endangered and Threatened Species. These are taxa for which the U. S. Fish and Wildlife Service has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposal to list, but issuance of a proposed rule is currently precluded by higher priority listing actions.

**Carrying Capacity:** The maximum stocking rate possible without damaging vegetation or related resources. May vary from year-to-year on the same area due to fluctuating forage production.

**Composition:** The relative amount (usually percent) of one plant species or one community type in relation to other species or community types in a given area.

**Consultation:** The process of seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them regarding matters arising in the Section 106 process. The Secretary’s *Standards and Guidelines for Federal Agency Preservation Programs* provide further guidance (36 CFR 800.16[f]).

Consultation also takes place between federally recognized American Indian Tribes, groups, organizations, and individuals under Section 106 and a suite of other laws and executive orders. It is also a process used to determine whether a proposed action may affect listed species or critical habitat.

**Council:** The Advisory Council on Historic Preservation or a Council member or employee designated to act for the Council (36 CFR 800.16[g]).

**Critical Area:** An area that is evaluated separately from the remainder of the management zone because it contains special or unique values. Critical areas may be treated with special consideration due to inherent site factors, including size, location, condition, values, or significant potential conflict among uses. Critical areas in this analysis are unsuitable for stock entry, although some inadvertent negligible entry occurs.

**Day Rides:** Day rides involve clients riding stock, accompanied by a guide, for periods of a day or less. No overnight equipment is involved.

**Dunnage Trips:** Trips in which packers using pack stock carry equipment and supplies for clients who are hiking to a pre-arranged destination, and/or pre-arranged re-supplies for clients on long duration trips. The packer does not stay with clients.

**Ecological (Seral) Status:** The present state of vegetation of an ecological site in relation to the potential natural community for the site. Ecological status is independent of use. It is an expression of the relative degree to which the kinds, proportions, and amounts of plants in a community resemble that of the potential natural community. The four ecological status classes correspond to 0-25, 26-50, 51-75, and 76-100 percent similarity to the potential natural community and are called early-seral, mid-seral, late-seral, and potential natural community, respectively.

**Effect:** (Cultural resources) Alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register (36 CFR 800.16[i]).

**Endangered Species:** A Federally listed species which in danger of extinction throughout all or a significant portion of its range.

**FAR:** Functional at Risk Proper Functioning Condition rating, should include a trend indicator (upward, downward, or not apparent).

**Fen:** Riparian habitat where peat (undecomposed/partially decomposed plant material) accumulates faster than it decomposes in groundwater-fed, perennially saturated areas.

**Full Service Trips:** Full service trips involve a guide, cook, or other paid employees of the operator that accompany the clients for the duration of the trip. The full time packer or packers that stay with the party during the duration of the trip handle stock for the riders including saddling, packing the mules, trip planning, animal care, equipment repairs, safety briefings, and possibly trail work to clear trails of debris or obstacles.

**Grazing Zone:** An identified area of land in which grazing may be authorized.

**Headcut:** A break in slope at the top of a gully or section of gully that forms a “waterfall,” which in turn causes the underlying soil to erode and the gully to expand uphill. This scarp may migrate upstream (headward), leading to stream incision. In high elevation Sierra Nevada Meadows, these headcuts often migrate into trails or natural swales, creating new stream channels.

**Historic Property:** Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to

and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria. The term eligible for inclusion in the National Register includes both properties formally determined as such in accordance with regulations of the Secretary of the Interior and all other properties that meet the National Register criteria. (36 CFR 800.16[l]).

**Hydrologic Function (meadows and wetlands):** Meadow hydrologic function is defined by the following factors: (1) The ability of the soil in a meadow to withstand intake, retain and transmit water (USDA Forest Service, 1995); (2) The ability of the meadow to dissipate energies associated with overland flow from adjacent sites and to improve flood water retention; and (3) The ability of the meadow to maintain a water table capable of supporting its Potential Natural Vegetation (PNV). PNV is defined as the plant community that would become established if all successional sequences were completed without human interference under the present environmental and floristic conditions, including those created by man.

**Informal consultation:** An optional process that includes all discussions and correspondence between the U.S. Fish and Wildlife Service and a Federal agency, prior to formal consultation., to determine whether a proposed Federal action may affect listed species or critical habitat. This process allows the Federal agency to utilize the Service's expertise to evaluate the agency's assessment of potential effects or to suggest possible modifications to the proposed action which could avoid potentially adverse effects. If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required. (Except when the Service concurs that a proposed action is not likely to adversely affect listed species or designated critical habitat.)

**Interdisciplinary Team:** A team of varied land use and resource specialists formed to provide a coordinated, integrated information base for overall land use planning and management.

**Key Area:** A portion of rangeland selected because of its location, grazing or browsing value, or use. It serves as a monitoring and evaluation point for range condition, trend, or degree of grazing use.

**Management Indicator Species (MIS):** A wildlife species whose population and trend in a certain habitat type indicates the population and trend of other species that are also dependent on that habitat type.

**National Register:** The National Register of Historic Places maintained by the Secretary of the Interior (36 CFR 800.16[q]). This is a list of historic properties.

**National Register Criteria:** The criteria established by the Secretary of the Interior for use in evaluating the eligibility of properties for the National Register (36 CFR part 60). (36 CFR 800.16[r])

**Nondegradation Objective (Water Quality):** An objective in the Lahontan Regional Water Quality Control Board Basin Plan (1994). It requires that, "Whenever the existing quality of water is better than the quality of water established in the Basin Plan as objectives, such existing quality shall be maintained unless appropriate findings are made under the policy."

**Not Recommended For Stock (NRFS):** An advisory for private equestrians that the conditions of a particular trail may be notably awkward and/or especially risky for use by pack and saddle stock.



**Not Suitable For Commercial Stock (NSCS):** (See **Trail Suitability**)

**Pathogen:** An agent that causes disease, especially a living microorganism such as a bacterium, protozoa, or fungus.

**PFC (Proper Functioning Condition):** Protocol for assessing stream conditions. A stream is at proper functioning condition if it has adequate vegetative, landform or large woody debris present to dissipate stream energy associated with high water flow, with stable streams and ability to filter sediment.

**Prehistoric Site:** Physical cultural remains created by past activities of indigenous peoples.

**Programmatic Agreement:** A document that records the terms and conditions agreed upon to resolve the potential adverse effects of a Federal agency program, complex undertaking or other situations (36 CFR 800.16[T]).

**Range Readiness:** The state of relative soil dryness and plant development in a location at which soils will support the weight and movement of livestock without being displaced, compacted or otherwise damaged and the stage of plant development at which the plants will sustain grazing impacts without loss of vigor or productivity. Rangeland is generally ready for grazing when soil has become firm after winter and early spring precipitation, and when plants have reached the defined stage of growth at which grazing may begin under a specific management plan without long-lasting damage.

**Rare Plants:** Plant species listed as Sensitive or Watch List on the Sierra and Inyo National Forests.

**Recreation Category:** Refers to the strategy for managing recreation use in the Ansel Adams, John Muir and Dinkey Lakes Wildernesses. Three recreation categories describe the desired condition for these wildernesses. Recreation Category 1 is to be managed for low use and the most pristine conditions. Recreation Category 2 is for concentrated use along trail corridors and at popular destinations and dispersed use at low to moderate levels off the main trail corridors. Recreation Category 3 is for higher levels of use concentrated and managed intensively; these are typically popular destinations close to the trailheads. A full description of these categories can be found in the 2001 Wilderness Plan for the Ansel Adams, John Muir and Dinkey Lakes Wildernesses.

**Resource Ratings or Overall Resource Rating (Trails):** Refers to numerical rating assigned to a trail segment after field evaluation of current impacts and potential effects due to risk factors. Ratings are on a scale of 0-5, with 0 representing very low concern, highly stable with no notable effects; while a rating of 5 indicates severe/extensive concerns with severe resource impacts and high risk factors. Further definitions of each rating are in the project record.

**Riparian:** Referring to or relating to areas adjacent to water or influenced by free water associated with streams or rivers.

**Riparian Conservation Area:** Areas adjacent to water bodies and wetlands and have specific standards and guidelines established in the Sierra Nevada Forest Plan Amendment. These areas are usually defined as the area within 300 feet of a perennial stream, spring, or wetland, and within 100 feet of an ephemeral or intermittent stream.

**Risk Factors (Trails):** Refers to conditions on the ground—usually naturally occurring—which potentially affect the stability of the trail and associated resources. Common risk factors include

exceedingly steep slopes, loose soils, riparian or meadow habitat, proximity and connectivity to streams or surface water. Other risk factors have a human component, such as excessively steep trail grades, insufficient design and lack of structures, or high trail use.

**Sedimentation:** The process of depositing sediment. Here, the term indicates sediment deposition into surface water.

**Sensitive Species:** Those plant and animal species identified by a Regional Forester for which population viability is a concern as evidenced by: 1) significant current or predicted downward trends in population numbers or density and 2) significant current or predicted downward trends in habitat capability that would reduce a species existing distribution.

**Seral-status:** Plant community stage depicting the relative position on a classical successional pathway (see Ecological Status).

**Sod fragmentation:** Broken vegetative cover or soil. Minor sod fragmentation might remove some vegetation, while severe sod fragmentation would break the soil to the rooting depth of vegetation.

**Soil compaction:** An increase in the density of soil, usually as a result of humans or animals walking on the soil surface. Compaction alters the soil structure so that it has less pore space, lower infiltration rates, and lower permeability.

**Soil productivity:** The capacity of soil to support plant growth. Soil productivity depends on soil nutrient levels, soil structure, climate, and water availability.

**Special Aquatic Feature:** Water-related features other than streams or rivers, including lakes, wet meadows, fens, wetlands, vernal pools and springs (as defined in the SNFPA 2004).

**Spot Trip:** Trips in which clients ride stock to a destination with a guide, supported with pack stock for equipment and gear. The riding stock, pack stock and guide do not stay with the party.

**Stabilizer Plants:** Plant species that become established along edges of streams. Although they generally require wet conditions for establishment they may persist in drier conditions once firmly established. They have commonly have some combination of strong, cord-like, rhizomes, deep fibrous roots, coarse leaves, strong root crowns, and are effective in buffering streambanks against the erosive forces of moving water and trapping sediment to build stream banks. Examples include sedges (*Carex utriculata*, *Carex nebrascensis*) and Willow (*Salix spp.*).

**State Historic Preservation Officer (SHPO):** The official appointed or designated pursuant to section 101(b)(1) of the National Historic Preservation Act to administer the State historic preservation program or a representative designated to act for the State historic preservation officer (36CFR 800.17[V]).

**Stock Night:** One horse or mule placed on a unit of land for the purpose of grazing available forage at any time during a 24-hour period. Expressed as a stock night because packers often place stock on a given grazing area overnight.

**Stocking Rate:** The number and types of animals placed on a unit of land for a specified period of time.

**Stream bank sloughing:** When a stream bank breaks vertically, and a portion of the bank falls into the stream. This process can occur naturally on outer bends of normally eroding streams, or

can occur as a result of stream bank trampling, vegetation loss, and soil compaction along the stream bank.

**Stream incision:** Erosion of either the stream bed or banks or both, where the stream is vertically separated from the former floodplain due to stream bed lowering. Where there is active erosion within the bed of a stream or river channel, the bed may be steadily lowered, creating relatively higher banks up onto the adjoining floodplain or terrace. The banks become increasingly steepened and unstable as this erosion is active at the toe of the slope. Streambed collapse and erosion occurs, and the channel commonly widens in conjunction with bed lowering.

**Suitability:** The appropriateness of applying certain resource management practices to a particular area of land as determined by an analysis of the economic and environmental consequences and alternative uses foregone.

**Suitable Area:** An area in which an interdisciplinary team has determined that grazing and or stock entry may be allowed with appropriate mitigations and standards.

**System Trail:** Trails that are wholly or partially within, or adjacent to and serving the National Forests, and that are included in the forest development transportation plan (Forest trail inventory).

**Threatened Species:** A Federally listed species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

**Trail Classes:** A designation assigned to each trail on the Forest trail inventory that defines the typical characteristics and intended development and management levels for each trail. Four classes are appropriate within wilderness areas. Trail Class 1 trails are the lowest development and typically the most lightly used managed trails. Trail Class 2 and 3 trails are increasingly developed on a continuum leading to Trail Class 4 trails, which are the most highly developed and typically serve extremely high numbers of trail users. These are further described in Chapter 2 of this document.

**Trail Deferred Maintenance** (Sometimes called “Backlog Maintenance): Maintenance that has not been performed—generally due to financial constraints—which leaves the trail in a substandard or degraded condition. Commonly refers to the added costs needed to return the trail to its intended standard.

**Trail Maintenance (also Annual Maintenance):** Recurring work performed to ensure the continued stability and availability of trails for use at the designated standard. May be performed annually or at intervals more frequent or exceeding annual. Typically includes clearing of obstacles, cleaning drainage structures, incidental repair and replacement of trail structures to ensure trail integrity and stability.

**Trail Reconstruction:** Major repairs and replacement of much of a trail’s infrastructure, to return a trail to its original standard or to improve a trail to its intended development level.

**Trust Responsibility:** Generally a set of principles and concepts outlining the responsibilities of the U.S. Government to act as the trustee of Indian people and Indian owned assets. The U.S. Government, through the President, has certain responsibilities to protect Indian property and rights, Indian lands, and resources. Fulfilling or redeeming a trust responsibility, can be reflected or demonstrated as a matter of action; a stream that was protected, a site that was maintained



intact, a property right that has been left unaffected by a Federal action. The writing of an environmental document is not an example of fulfilling a trust duty.

**Trail Suitability:** A determination of the appropriateness of commercial stock on individual system trails. This determination is based upon one or a combination of factors including the stability of the trail and associated resources, the presence of risk factors which would likely lead to instability without excessive trail development, considerations of destination capability, and desired conditions. Trails which are determined to be inappropriate for such use are designated "Not Suitable for Commercial Stock" (NSCS).

**Unavailable Areas:** Areas that are outside of grazing zones and are therefore closed to grazing.

**Unsuitable Area:** An area in which an interdisciplinary team has determined it is not appropriate for grazing or entry by any stock. All of these areas are closed to grazing.

**Use Trail:** A non-system trail (not on Forest trail inventory), either distinct and readily followed or intermittent, which provides access to lesser-used destinations, such as campsites, viewpoints, or remote areas not served by system trails. Use trails are most commonly formed by repeated travel by either hikers or equestrians. This can also refer to former trails or roads, of which use has decreased to the point that no management as a system trail is needed.

**Watch List Plants:** Species that are locally rare, are of special interest, such as cactus or orchids, are widely disjunct from the main distribution of the species, are largely endemic to the Forests, or species for which very little, if any, information is available but existing information may indicate some cause for concern.

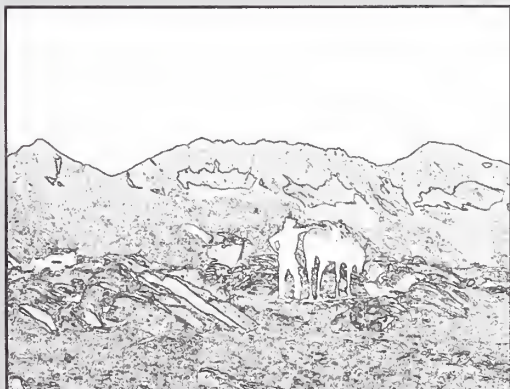
**Water Table (or Groundwater Table):** The top surface of the zone where the soil is saturated with water. Above this surface, the pore space in the soil is filled mainly with air.

**Weeds:** Plants non-native to California, as listed in the Jepson Manual (Hickman, 1993).

**Wetlands:** Those areas that are inundated by surface or ground water with frequency sufficient to support, and under normal circumstances do or would support a prevalence of vegetation or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Generally includes swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flat, and natural ponds.

\* Grazing and rangeland related definitions are adapted for this project from the Glossary in the Rangeland Analysis and Planning Guide, (USFS, Pacific Southwest Region, 1997), and the additional Glossary contained in Chapter 3, Sampling Vegetation Attributes, Interagency Technical Reference, ITR, BLM/RSD/ST-96/002+1730, in the Rangeland and Analysis Guide, and "Monitoring the Vegetation resources in Riparian Areas" by Alma H. Winward (April, 2002).





## Appendix B Literature Cited



## Appendix B – Literature Cited

### Management Documents Cited Throughout Document

USDA Forest Service. Inyo National Forest. *Land and Resource Management Plan and Final Environmental Impact Statement*. 1988.

USDA Forest Service. Sierra National Forest. *Land and Resource Management Plan and Final Environmental Impact Statement*. 1992.

USDA Forest Service. Inyo and Sierra National Forests. *Management Direction for the Ansel Adams, John Muir and Dinkey Lakes Wildernesses (Wilderness Plan)*. 2001.

USDA Forest Service. Region 5. *Sierra Nevada Forest Plan Amendment. Final Environmental Impact Statement*. 2001.

USDA Forest Service. Region 5. *Sierra Nevada Framework Plan Amendment, Record of Decision and Final Supplemental Environmental Impact Statement (SNFPA)*. 2004.

### Other Citations

Albert, Carrol P. 1982. A Survey of Factors influencing the Condition of the Stream Zone in the Golden Trout Wilderness. Master Thesis. Sonoma State University, Rohnert Park, CA.

Alexander, E.B, and R. Poff. 1985. Soil Disturbance and Compaction in Wildland Management. USDA Forest Service Pacific Southwest Region. Earth Resources Monograph 8.

Allen-Diaz, Barbara and Reginald Barrett, William Frost, Lynn Huntsinger, and Ken Tate. 1999. Sierra Nevada Ecosystems in the presence of livestock. A report to the Pacific Southwest Station and Region. USDA, USFS, 1999, SNEP Report, Vallejo, CA.

Allen, Edith B. 2004. Restoration of Artemisia Shrublands invaded by Exotic Annual Bromus: A Comparison Between Southern California and the Intermountain Region. USDA Forest Service Proceedings RMRS-P-31.

Atwill, E.R. 1995. Microbial pathogens exerted by livestock and potentially transmitted to humans through water. (Found on <http://nature.berkeley.edu/forestry/rangeland/pdfs/AtwillArcfinal.pdf>)

Atwill, E.R., McDougald N.K., Perea L. 2000. Cross-sectional study of faecal shedding of *Giardia duodenalis* and *Cryptosporidium parvum* among packstock in the Sierra Nevada Range. *Equine Veterinary Journal*. 32(3): 247-252.

Beard, R. 2004. Stream channel change in response to cattle exclosures in semi-arid central Arizona. *Journal of the Arizona-Nevada Academy of Science* 36(2): 81-87.

Beck, T. W. and J. W. Winter. 2000. Survey protocol for the great gray owl in the Sierra Nevada of California. Unpublished report prepared for the USDA Forest Service, Pacific Southwest Region. Vallejo, CA.

Berg, N.H, K.B. Roby and B.J. McGurk. 1996. Cumulative Watershed Effects: Applicability of available methodologies to the Sierra Nevada. Sierra Nevada Ecosystem Project, Final Report to

- Congress, vol. III, Assessments, Commissioned Reports, and Background Information. Davis: University of California, Centers for Water and Wildland Resources.
- Belsky, A.J., A. Matzke, and S. Uselman. 1999. Survey of livestock influences on stream and riparian ecosystems in the western United States. *Journal of Soil and Water Conservation*. First Quarter, 1999, 54 419-431.
- Branson, F.A., G.F. Gifford, K.G. Renard, and R.F. Hadley. 1981. Rangeland Hydrology. *Society for Range Management*. Range Science Series, No.1, October 1972, Second Edition 1981. Society for Range management, Denver, CO.
- Borrie, Bill. 2004. Why Primitive Experiences in Wilderness? Unpublished. 4 pp.
- Bossard, Carla C., John M. Randall, Marc C. Hoshovsky. 2000. *Invasive Plants of California's Wildlands*. Univ. of California Press, Berkeley, CA.
- Bouey, P. D. and M. E. Basgall. 1984. Trans-Sierran Exchange in Prehistoric California and the Concept of Economic Articulation. In *Obsidian Studies in the Great Basin*. Contributions of the University of California Archaeological Research Facility No. 45, edited by R. E. Hughes, pp. 135-172. Archaeological Research Facility, University of California, Berkeley.
- Buckhouse, J.C. and G.F. Gifford. 1976. Water quality implications of grazing on a semiarid watershed in southeastern Utah. *Journal of Range Management*. 29:109-113.
- Burdee, J.H. and J.R. Renfro. 1985. Use impacts on the Appalachian Trail. In: Lucas, R.C., compiler. *Proceedings - National wilderness research conference: Current Research*. 1985 July 23-26; Fort Collins, CO. General Technician Report INT-212. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain research Station: 138-144.
- California Department of Fish and Game. Various dates. California Department of Fish and Game Deer Herd Management Plans. On file Inyo National Forest, Bishop, CA.
- California Department of Food and Agriculture (CDFA). 2005. On-line resources for noxious weeds: [http://www.cdfa.ca.gov/phpps/ipc/encycloweedia/encycloweedia\\_hp.html](http://www.cdfa.ca.gov/phpps/ipc/encycloweedia/encycloweedia_hp.html)
- California Employment Development Department. 2004a. County Snapshots. Available from <http://www.calmis.ca.gov/htmlfile/subject/cosnaps.htm>.
- California Employment Development Department. 2004b. Major Employers by County. Available from <http://www.calmis.ca.gov/file/majorer/majorer.htm>.
- California Invasive Plants Council (CalIPC). Plant assessment forms. <http://groups.ucanr.org/ceppc>, accessed 2005.
- California Native Plant Society (CNPS). 2001. *Inventory of rare and endangered plants of California, 6th edition*. Rare Plant Scientific Advisory Committee, David P. Tibor, Convening Editor. Sacramento, CA.
- California Natural Diversity Data Base (CNDDB). 2003. Rarefind 3.0.5. Calif. Dept. of Fish & Game, Sacramento, CA.
- Central Valley Regional Water Quality Control Board. 1995. Water Quality Control Plan for the Tulare Lake Basin: Second Edition.
- Chapman, H.H. 1933. Influence of Overgrazing on Erosion and Watersheds. *Civil Engineering for February*, 1933. Vol. 3, No. 2, pages 74-78.



- Christy, J.A. and D. H. Wagner. 1996. Guide for the identification of rare, threatened or sensitive bryophytes in the range of the Northern Spotted Owl, western Washington, western Oregon, and northwestern California. BLM, Portland, OR.
- Cole, David N. and J. Dalle-Molle. 1982. Managing Campfire Impacts in the Backcountry. General Technician Report INT-135. USDA Forest Service Intermountain Forest and Range Experiment Station, Ogden UT.
- Cole, David, M.E. Peterson, and R.L. Lucas 1987. Managing wilderness recreation use: common problems and potential solutions. General Technician Report INT-230 USDA Forest Service, Ogden UT 60 p.
- Cole, D. N. and D. R. Spildie. 1998. Hiker, horse and llama trampling effects on native vegetation in Montana, USA. *Journal of Environmental Management* 53: 61-71
- Colc, David N., J.W. Van Wagendonk, M.P. McClaran, P.E. Moore, N.K. McDougal. 2004. Response of Mountain Meadows to Grazing by Recreational Pack Stock. *Journal of Range Management*. March, 2004: 57(2) 153-160.
- Cole, D.N. 1989. Viewpoint: Needed Research on Domestic and Recreational Livestock in Wilderness. *Journal of Range Management*. 42(i) pp.84-86
- Cole, D.N. 1989. Recreation in whitebark pine ecosystems: demand, problems, and management strategies. *Symposium on Whitebark Pine ecosystems*. Bozeman, MT, March 23-31, 1989.
- Cole, David N. 1990. Some principles to guide wilderness campsite management. In: Lime, David W., ed. *Managing America's Enduring Wilderness Resource: Proceedings of the Conference*; 1989 September 11-17; Minneapolis, MN 181-187pp.
- Cole, D.N., 1991. Changes on trails in the Selway-Bitterroot Wilderness, Montana, 1978-89. U.S. Forest Service, Research Paper INT-450.
- Cole, David N., M.P. McClaran. 1993. Packstock in Wilderness: Use, Impacts, Monitoring, and Management. General technical Report INT-301. USDA, Intermountain research Station, Ogden, UT.
- Cole, David N. 1995. Experimental Trampling of Vegetation. II. Predictors of Resistance and resilience. *Journal of Applied Ecology*, 1995, 32, 215-224.
- Cook, Sherbourne F. 1943. *The Conflict between the California Indians and White Civilization*. Ibero-Americana Press.
- Cooper, David J., Rodney C. Chimner, Evan Wolf. 2004a. Preliminary analysis of fen carbon fluxes in summer of 2004. Unpublished report.
- Cooper, D.J., R.A. Chimner, E.C. Wolf. 2004b. Livestock use and the sustainability of Sierra Nevada fens. Draft report for the Inyo NF.
- Cottam, W. P.; and G. Stewart. 1940. Plan Succession as a Result of Grazing and of Meadow Dessication by Erosion Since Settlement in 1862. *Journal of Forestry*, 38:613-626.
- Dale, D. and T. Weaver. 1974. Trampling effects on vegetation in the Bighorn Crags, Idaho Primitive Area. M.S. Thesis. University of Idaho, Moscow. 63 pgs.

- Davidson, J.M. and C.G. Shaw. 2003. Pathways of movement for *Phytophthora ramorum*, the causal agent of Sudden Oak Death. Sudden Oak Death Online Symposium. [www.apsnet.org/online/SOD](http://www.apsnet.org/online/SOD) (website of the American Phytopathological Society). Doi:10.1094/SOD-2003-TS
- Davis, Emma Lou. 1965. An Ethnography of the Kuzedika Paiute of Mono Lake, Mono County, California. Miscellaneous Papers, University of Utah Anthropological Papers 8:1-55. University of Utah Press, Salt Lake City.
- Debenedetti, Steven H., and D.J. Parsons. 1979. Mountain Meadow Management and Research in Sequoia and Kings Canyon National Parks: A Review and Update. National Park Service, Sequoia and Kings Canyon National Parks, Three Rivers, CA.
- Deluca, T.H.; Patterson, W.A. IV; Freimund, W.A.; Cole, David N. 1998 Influence of Llamas, Horses, and Hikers on Soil Erosion from Established Recreation Trails in Western Montana, USA. *Environmental Management*, Vol.22, No. 2. pp 255-262.
- Derlet, R.W., Carlson, J.R and Noponen, M.N. 2004. Coliform and Pathogenic Bacteria in Sierra Nevada National Forest Wilderness Area Lakes and Streams. *Wilderness and Environmental Medicine*, 15, 245-249.
- Derlet, R.W. and Carlson, J.R. 2004. An Analysis of wilderness water in Kings Canyon, Sequoia and Yosemite National Parks for Coliform and Pathogenic Bacteria.
- Derlet, R.W. and Carlson, J.R. 2003. Incidence of fecal coliforms in fresh water from California wilderness areas. *Proceedings of the American Society for Microbiology*. Washington, DC: American Society for Microbiology, May 18-22, 2003; 408-409.
- DeSante, D. F. 1995. The status, distribution, abundance, population trends, demographics, and risks of the landbird avifauna of the Sierra Nevada Mountains. A report prepared for the Sierra Nevada Ecosystem Project. The Institute for Bird Populations. Point Reyes Station, CA. 100 .
- Diaz, B. A., R. Barrett, W. Frost, L. Huntsinger, and K. Tate. 1999. Sierra Nevada ecosystems in the presence of livestock. A report to the Pacific Southwest Station and Region. USDA Forest Service. 143 p.
- Dilsaver, L. M. and Tweed, W. C. 1990. *Challenge of the Big Trees*. Three Rivers: Sequoia Natural History Association.
- Dobkin, D. S., A. C. Rich, and W. H. Pyle. 1998. Habitat and avifaunal recovery from livestock grazing in a riparian meadow system of the northwestern Great Basin. *Conservation Biology* pp. 209-221, Volume 12, No.1
- Dotzenko, A.D., N.T. Pappichos, D.S. Romine. 1967. Effects of recreational use on soil and moisture conditions in Rocky Mountain national Park. *Journal of Soil and Water Conservation* 22:196-197.
- Eastern High Sierra Packers' Association. 2000. Misc. On file, Inyo National Forest, Bishop, California.
- Elmore, Wayne and R. Beschta. 1987. Riparian Areas: Perceptions in Management. *Rangelands* 9(6), December, 1987. Society for Range Management, Denver, CO.

- Elmore, Wayne and R. Beschta. 1989. The Fallacy of Structures and the Fortitude of Vegetation. USDA Forest Service, General Technical Report PWS-110. Pacific Southwest Region, San Francisco, CA.
- Essene, F. J. and Hulse. 1935 Bishop Paiute Notes. Ethnographic Documents 1-203 (CU-23-1), University Archives. University of California, Berkeley.
- Farquahar, F. P. 1925. Exploration of the Sierra Nevada. *California Historical Society Quarterly* 4(1).
- Farquhar, F. P. 1965. *History of the Sierra Nevada*. Berkeley: University of California Press.
- Farrar, D. 2004. Botrychium subgenus Botrychium in California. Unpublished report, part of draft Conservation Assessment. USFS files.
- Fowler, C. S. and S. Liljeblad. 186. Northern Paiute. In Handbook of North American Indians, Volume 11: Great Basin, edited by W. D'Azevedo. Smithsonian Institution Press, Washington D. C.
- Frissell, S. S., and D. P. Duncan. 1965. Campsite preference and deterioration in the Quetico-Superior canoe country. *Journal of Forestry*. 63:256-260.
- Gaines, W. L., P. H. Singleton, and R. C. Ross. 2003. Assessing the cumulative effects of non-linear recreation routes on wildlife habitats on the Okanogan and Wenatchee National Forests. Gen. Tech. Rep. PNW-GTR-586. Portland, OR: Department of Agriculture, Forest Service, Pacific Northwest Experiment Station. 79 p.
- Garbelotto, M., J.M. Davidson, K. Ivors, P.E. Maloney, D. Hüberli, S.T. Koike, D.M. Rizzo. 2003. Non-oak native plants are main hosts for sudden oak death pathogen in California.
- Gayton, A. 1948. Yokuts and Western Mono Ethnography. University of California *Anthropological Records* 10(1-2):1-302.
- Gifford, E. W. 1932. The Northfork Mono. University of California Publications in *American Archaeology and Ethnology* 29(3):357-334. University of California, Berkeley.
- Gimblett, Randy Dr. 1999 Evaluating the Spatial and Temporal Distribution of Use in the John Muir and Ansel Adams Wildernesses. University of Arizona In co-operation with the Inyo and Sierra National Forests. Inyo National Forest files.
- Gorski, Margaret. 1990. Pack-in wood campfire study. Mammoth Ranger Dist., Inyo NF.
- Green, G. A., Bombay, H. L., Morrison, M. L. 2003. Conservation Assessment of the Willow Flycatcher in the Sierra Nevada. USDA Forest Service, Pacific Southwest Region. 62p.
- Hagberg, T.D. 1995. Relationships between hydrology, vegetation and gullies in montane meadows of the Sierra Nevada. Thesis. Humboldt State University.
- Hall, M.C. 1983. Late Holocene Hunter-Gatherers and Volcanism in the Long Valley-Mono Basin Region: Prehistoric Culture Change in the Eastern Sierra Nevada. Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Riverside.
- Hargis, C. D., R. Perloff and C. McCarthy. 1991. Home ranges and habitats of northern goshawks in eastern California. Unpublished manuscript on file. Inyo National Forest Supervisors Office. Bishop, Ca.



- Helgath, S.F. 1975. Trail deterioration in the Selway Bitterroot Wilderness. USDA Forest Service Research Note INT-193. 15 pg. Ogden.
- Hendee, John C.; George H Stankey and Robert C. Lucas. 1990. *Wilderness Management, Second Edition, Revised*. North American Press Golden Colorado
- Hilton, M. R. 2003. PIT Project Survey Pioneer Basin, Heritage Resources Report R2003050400992. On file, Inyo National Forest.
- Hindes, Margaret G. 1959. A Report of Indian Sites and Trails: Huntington Lake Region, California. University of California Archaeological Survey Reports 48:1-15.
- Hindes, Margaret G. 1962a. Archaeology of the Huntington Lake Region in the Southern Sierra Nevada, California. University of California Archaeological Survey Reports 58:1-56. Berkeley.
- Hindes, Margaret G. 1962b. California. Yosemite Resource Center Publications in Anthropology, No. 21. Yosemite
- Holliday, J. S. 1981. *The World Rushed In*. Simon and Shuster, New York.
- Hull, Kathleen L. 2004. Emergent Cultural Traditions in the Central Sierra Foothills. Proceedings of the Society for California Archaeology Vol. 17: 113-118. Papers Presented at the 37th Annual Meeting of the Society for California Archaeology, Sacramento, California march 27-29, 2003
- Jackson, L. A. 2004. *The Mule Men. A History of the Stock Packing Industry in the Southern Sierra Mountains of California*.
- Jackson, R., M. Boynton, W Olsen, and R. Weaver 1988. CARIDAP: California Archaeological Resource Identification and Data Acquisition Program: Sparse Lithic Scatters. On file California Office of Historic Preservation.
- Jackson, Thomas T. and Christopher Morgan. 1999. Archaeological Data Recovery Program, Rush Meadow Archaeological District, Ansel Adams Wilderness, Inyo National Forest, California. Submitted to Southern California Edison Company, Rosemead.
- Jackson, Thomas L and Jackson, Robert J. 1997. Archaeological Data Recovery Mitigation at CA-Iny-3458, South Lake Bishop Creek, Inyo County, California—Bishop Creek Hydroelectric Project (FERC Project 1394). Submitted to Southern California Edison Company, Rosemead.
- Jackson, T. L. 2005. Wilderness Cultural Resources Inventory, Area I: Minarets Pack Station, Sierra National Forest USFS Report No: 05-15-51-46-04 prepared for Greystone Environmental Consultants, Inc. Prepared by Thomas L. Jackson, Mary O'Neill, Monique Pomerleau, and Erik Whitman.
- Johnson E., Atwill E.R., Filkins M.E., Kalush, J. 1997. The prevalence of shedding of *Cryptosporidium* and *Giardia* spp. Based on a single fecal sample collection from each of 91 horses used for backcountry recreation. *Journal of Veterinary Diagnostic Investigation* 9 (1): 56-60.
- Karlstrom, E. L. 1962. The toad genus *Bufo* in the Sierra Nevada of California. *Univ. of California Publications in Zoology*, Vol.62, No.1 Univ. of California Press. 104 p.

- Kaufmann, J. B., and W. C. Kreuger. 1984. Livestock impacts on riparian ecosystems and streamside management implications...a review. *Journal of Range Management*. 37(5) 430-437.
- Kerwin, W. C. 2005 John Muir and Ansel Adams CEA, Heritage Resources Report R2004050400915. On file, Inyo National Forest.
- Kirchner, J.W., L. Micheli, J.D. Farrington. 1998. Effects of Herbaceous Riparian Vegetation on Streambank Stability. Technical Completion Report, Project Number W-872, University of California Water Resources Center, project UCAL-WRC-W-872.
- Knight, R L. and K. J. Gutzwiller. eds. 1995. *Wildlife and Recreationists: Coexistence through management and research*. Washington, D.C: Island Press. 372 p.
- Kondolf, Mathias G., 1993. Lag in Stream Channel Adjustment to Livestock Exclosure, White mountains, California. Restoration Ecology, December 1993. *Society for Ecological Restoration*.
- Kress, M., and G.F. Gifford. 1984. Fecal coliform release from cattle fecal deposits. *Water Resources Bulletin*. 20(1):61-66.
- Kroeber, A. L. 1925. Handbook of the Indians of California. *Bureau of American Ethnology Bulletin* 78. Smithsonian Institution Press, Washington D.C.
- Kuss, F.R. 1987. The effect of two hiking intensities on wildland trail wear. In: Lucas, R.C. compiler. Proceedings—national wilderness research conference: current research; 1985 July 23-26; Fort Collins, CO General Technician Report INT-212. Ogden, UT: USDA Forest Service, Intermountain Research Station: 158-166.
- Landres, Peter. 2004. Developing Indicators to Monitor the "Outstanding Opportunities" Quality of Wilderness Character. *International Journal of Wilderness* 10(3):8-11, 20.
- Landres, Peter, S. Boutcher, L. Merigliano, C. Barns, D. Davis, T. Hall, S. Henry, B. Hunter, P. Janiga, M.Laker, A. McPhearson, D.S. Powell, M. Rowan, S. Sater. 2005 Monitoring Selected Conditions Related to Wilderness Character: A National Framework. General Technical Report RMRS- GTR-151. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, 38 p.
- LaPage, W.F. 1962. Recreation and the forest site. *Journal of Forestry* 60:319-321
- Latta, Frank F. 1977 Handbook of Yokuts Indians. Bear State Books, Santa Cruz.
- Le Conte, J. N. 1907. The High Sierra of California. *Alpina Americana*., no. 1.
- Leopold, Luna B., M.G. Wolman, J.P. Miller. 1992. Fluvial Processes in Geomorphology. Dover Publications. Mineola, NY.
- Liljeblad, S. and C. S. Fowler. 1986. Owens Valley Paiute. In *Handbook of North American Indians*, Volume 11, Great Basin, edited by W. L. D'Azevedo, pp. 412-434. Smithsonian Institution Press, Washington D.C.
- Livermore, Norman B., Jr. (Ike). 1935. The Tourist Packing Business of the High Sierra Region. Report (February).
- Livermore, Norman B., Jr. 1947. Sierra Packing and Wilderness Policy. *Sierra Club Bulletin*, 36(5).

- Loft, E. R., J. G. Kie, and J. W. Menke. 1993. Grazing in the Sierra Nevada: home ranges and space use patterns of mule deer as influenced by cattle. *California Fish and Game* 79: 145-166.
- Loomis, J. B. and Richardson, R. In Press. Economic Values of Wilderness in the United States. Fort Collins, CO: Dept of Agricultural and Resource Economics, Colorado State University.
- Los Angeles Department of Water and Power. 2004. available from <http://www.ladwp.com/ladwp/cms/ladwp004409.jsp>
- Lahontan Regional Water Quality Control Board (LRWQCB) 1994. Water Quality Control Plan for the Lahontan Region. <http://www.swrcb.ca.gov/rwqcb6/Bplan/Plantxt.pdf>
- Lucas, R.C. 1980. Use patterns and visitor characteristics, attitudes and preferences in nine wilderness and other roadless areas. Research Paper m-253. Ogden, Utah. U.S. Department of Agriculture, Forest Service, Intermountain Forest and Range Experiment Station.
- Major, J. and S.A. Bamburg. 1963. Some Cordilleran plant species new for the Sierra Nevada of California. *Madroño*, Vol. 17, No. 4, pp. 93-109.
- Mammoth Community Water District (MCWD). 2002. 2002 MCWD Annual Water Quality Report. Letter to water users.
- McCarthy, Helen. 1993. A Political Economy of Western Mono Acorn Production. Unpublished Ph.D. Dissertation, Department of Anthropology, University of California, Davis.
- McCarthy, Helen. 1996. Ethnography. In Gilreath, Amy J. 1996. Cultural Resources Inventory of Four Tributaries to Mono Lake, and an Evaluation Plan for the Mono Streams Restoration Project ARR #05040679. Report on file at the Inyo National Forest, Bishop.
- McClaran, Mitchel P. and D.N. Cole. 1993. Packstock in Wilderness: Use, Impacts Monitoring and Management. General Technician Report INT-301, USDA Forest Service Intermountain Research Station, Ogden UT.
- McClaran, M.P. 2000. Improving livestock management in wilderness, p. 49–63. In: D.N. Cole, S.F. McCool, W.T. Borrie and J.O'Loughlin (comps.) Wilderness science in a time of change. Volume 5: Wilderness Ecosystems, Threats, and Management. USDA For. Serv. Proc. RMRS-P-15-VOL-5. Ogden, Utah.
- Merriam, C. Hart. 1955. *Studies of the California Indians*. University of California Press, Berkeley.
- Merriam, L.C. and C.K. Smith. 1974. Visitor Impact on Newly Developed Campsites in the Boundary Waters Canoe Area. 72(11):627-630.
- Miller, S. G., R. L. Knight, and C. L. Miller. 1998. Influence of recreational trails on breeding bird communities. *Ecological Applications*, Vol.8(1), pp 162-169.
- Moore, P.E., D.N. Cole, J.W. van Wagtendonk, M.P. McClaran, N. McDougal. 2000. Meadow response to pack Stock Grazing in the Yosemite Wilderness: Integrating Research and Management. USDA Forest Service Proceedings, Rocky Mountain Research Station, P-15-vol-5. Ogden, UT.
- Morgan, C. 2005 Area II: Silver Divide and Area V: Piute Trail and Humphrey Basin Wilderness Cultural Resources Inventory High Sierra District Sierra National Forest, California



prepared for Greystone Environmental Consultants, Inc. Prepared by Christopher Morgan, Thomas L. Jackson, and Monique Pomerleau.

Mosconi, S. I., and R. L. Hutto. 1982. The effects of grazing on land birds of a western Montana riparian habitat. P. 221-233. In: *Wildlife-Livestock Relationships Symposium: Proc. 10*. Univ. of Idaho Forest, Wildlife, and Range Exp. Sta. Moscow, Idaho.

Monz, Christopher; Roggenbuck, Joseph; Cole, David; Brame, Richard; Yoder, Andrew. 2000. Wilderness Party Size Regulations: Implications for Management and a Decision for Framework. RMRS-P-15-VOL-4. Missoula, MT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. pp 265-273.

Morgan, Charles. 1995. Mt. Whitney Pack Trains 1946 to 1971. Mt. Whitney Packers and Friends. pp. 9-12.

Morgan, Charles. No date. Mule Packers and the Sierra Club. In, Mt. Whitney Packers & Owens Valley History Site.

[http://www.owensvalleyhistory.com/stories1/mule\\_packers\\_and\\_s\\_club.pdf](http://www.owensvalleyhistory.com/stories1/mule_packers_and_s_club.pdf).

Muir, J. 1894. *The Mountains of California*. Doubleday Inc., Garden City, New York. 300 pp.

Muir, J. 1911. *My First Summer in the Mountains*. Houghton Mifflin Company, New York, New York. 270pp.

Odion, Dennis C., T.L. Dudley, and C. M. DeAntioio. 1988. Cattle Grazing in Southeastern Sierran Meadows: Ecosystem Change and Prospects for Recovery. The Mary DeDecker Symposium, Plant Biology of Eastern California, University of California, White Mountain research Station, Los Angeles, CA.

Olson-Rutz, C.B. Marlow, K. Hansen, L.C. Gagnon, and R.J. Rossi. 1996. Packhorse Grazing Behavior and Immediate Impact on a Timberline Meadow. *Journal of Range Management*. November, 1996: 49(6):546-550.

Olson-Rutz, C.B. Marlow, K. Hansen, L.C. Gagnon, and R.J. Rossi. 1998. Recovery of a High Elevation Plant Community after Packhorse Grazing. *Journal of Range Management*. November, 1996: 49(6):541-545.

Orr, H.K. 1960. Soil porosity and bulk density on grazed and protected Kentucky bluegrass range in the Black Hills. *Journal of Range Management* 13: 80-86.

Parsons, D. J. and DeBenedetti, S. H. 1979. Impact of fire suppression on a mixed-conifer forest. *Forest Ecology and Management* 2:21-33.

Phaneuf, Daniel J. and V. Kerry Smith. 2004. Recreation Demand Models. Prepared for *Handbook of Environmental Economics*, K. Maler and J. Vincent Editors.

Planas, L and B. Parrish. 2004: An Archaeological Reconnaissance Report of the Mono Trail Corridor prepared by Lorrie Planas, M.A. and Barbara Parrish M.A. with Contributions from Alan Gallegos, B.S. and Laughing Coyote CEO, Native Earth Foundation

Polanich, J. K. 1996 Living Large in Long Valley: Subsistence and Social Life in the Accounts of Jim Tom Jones. Paper presented at the Great Basin Anthropological Conference, Kings Beach.

Power, T.M. 1996. *Lost Landscapes and Failed Economies: The Search for a Value of Place*. Island Press, Covelo, CA.

- Ratliff, R.D. 1982. A meadow site classification for the Sierra Nevada, California. Gen. Tech. Rep. PSW-60. Berkeley, CA: Pacific Southwest Forest and Range Experiment Station, Forest Service, U.S. Dept. of Agriculture; 16 p.
- Ratliff, R.D. 1985. Meadows in the Sierra Nevada of California: state of knowledge. Gen. Tech. Rep. PSW-84. USDA, Forest Serv., Pacific Southwest Forest and Range Experiment Station, Berkeley, CA.
- Rasker, R. 1994. Jobs and Wildlands: Development of Roadless Areas and Employment Trends in Six Counties in Northwestern Montana. The Wilderness Society, with data from U.S. Forest Service, Desktop GIS Roadless Database.
- Rasker, R. 1994b. A New Look at Old Vistas: The Economic Role of Environmental Quality in Western Public Lands. *University of Colorado Law Review* 65:369-99
- Reed, Floyd, R. Roath, and D. Bradford. 1999. The Grazing Response index: A Simple and Effective Method to Evaluate Grazing Impacts. *Rangelands*, August 1999; 21(4), 3-7.
- Reid, Robert Leonard (ed.) 1983. *A Treasury of the Sierra Nevada*. Wilderness Press, Berkeley.
- Rendtorff, R.C. 1954. The experimental transmission of human intestinal protozoan parasites. *Giardia lamblia* cysts given in capsules. *American Journal of Hygiene*. 59: 209-220.
- Reynolds, Linda A. 2002. Annual Report, Wilderness Programmatic Agreement, Inyo National Forest, Calendar Year 2002. Report on file at the Inyo National Forest, Bishop.
- Reynolds, Linda A. and William C. Kerwin. 2003. Annual Report, Wilderness Programmatic Agreement, Inyo National Forest, Calendar Year 2003. Report on file at the Inyo National Forest, Bishop.
- Reynolds, L. A. and W. C. Kerwin. 2005. Annual Report, Wilderness Programmatic Agreement, Inyo National Forest, Calendar Year 2004. Report on file at the Inyo National Forest, Bishop.
- Ruggiero, L. F., K. B. Aubry, S. W. Buskirk, L. Jack Lyon, and W. J. Zielinski, tech .eds. 1994. The scientific basis for conserving forest carnivores: American marten, fisher, lynx, and wolverine in the western United States. Gen. Tech. Rep. RM-254. Ft. Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station. 184 p.
- Samson, F. B. 1980. Use of montane meadows by birds. In Workshop proceedings. Management of western forests and grasslands for nongame birds. USDA Forest Service. General Technical Report. INT-86, p 113-129. Intermountain Forest and Range Experiment Station, Ogden, Utah.
- Sarr, Daniel Allen. 1995. Grazing, Graminoids and Hysteresis, Investigating Relationships Between livestock Production, Riparian Communities, and Ecosystem Recovery in the Southern Sierra Nevada, California. Masters Thesis, University of California, Santa Barbara. Santa Barbara, CA.
- Sarr, Daniel, Knapp, R.A., Owens, J., Balser, T., Dudley, T. 1996. Ecosystem Recovery from Livestock Grazing in the Southern Sierra Nevada. Final Completion Report. Project INT-94942-RJVA. The Aldo Leopold Wilderness Research Institute Missoula, MO.

- Schindler, D.E., R.A. Knapp, and P.R. Leavitt. 2001. Alteration of nutrient cycles and algal production resulting from fish introductions into mountain lakes. *Ecosystems* 4: 308-321.
- Schreiner E. 1978. The effects of campfire building activities on vegetation and soils. Resource Management Information Note, Olympic National Park.
- Sherman, C. K. 1980. A comparison of the natural history and mating system of two anurans: Yosemite toad (*Bufo canorus*) and black toad (*Bufo exsul*). PhD Dissertation, Univ. of Michigan. Ann Arbor, Michigan. 394 p.
- Sickman, J.O., J.M. Melack, D.W. Clow. 2003. Evidence for nutrient enrichment of high-elevation lakes in the Sierra Nevada, California. *Limnol. Oceanographer*. 48(5), 1885-1892.
- Sierra Club. 1952. Roster of High Sierra Packers. *Sierra Club Bulletin*, 38(5).
- Sierra Club. 2005. Sierra Club History, Origins and Early Outings. <http://www.sierraclub.org/history/origins/chapter1.asp>
- Skovlin, Jon M. 1984. Impacts of grazing on wetlands and riparian habitats: A review of our knowledge. In developing strategies for rangeland management. Natural Research Council, National Academy of Sciences. Boulder, CO.
- Smith, Aimee 2004. Grazing Suitability Assessments – High Sierra and Bass Lake Ranger Districts – Sierra National Forest. File Code 2320/2700.
- Snyder, Arnold. 1960. Wilderness Area Management; An Administrative Study of a Portion of the high Sierra Wilderness Area, Sierra National Forest. U.S. Dept. of Agriculture, Region 5, Forest Service. Internal Document.
- Snyder, Jim. 2001. Indian Trails on the Sierra National Forest. Report on file at the Sierra National Forest, Clovis.
- Spildie, D.R., D.N. Cole, S. C. Walker, 2000. Effectiveness of a Confinement Strategy in Reducing Pack Stock Impacts at Campsites in the Selway-Bitterroot Wilderness, Idaho. USDA Forest Service Proceedings RMRS-P-15-VOL-5.
- Spildie, D.R., D.N. Cole, and S.C. Walker. 2000. Effectiveness of a confinement strategy in reducing pack stock impacts at campsites in the Selway-Bitterroot Wilderness, Idaho. Pages 199-208 In Cole, D.N., S.F. McCool, W.T. Borrie, and J. O'Loughlin, comps. Wilderness science in a time of change conference - Volume 5: Wilderness ecosystems, threats, and management. May 23-27, 1999, Missoula, MT. Proceedings RMRS-P-15-VOL-5. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.
- Stanley J.T. Jr., H.T. Harvey. R.J. Hartesveldt. 1977. A Report on the Wilderness Impact Study. The Effects of Human Recreational Activities on Wilderness Ecosystems with Special Emphasis on Sierra Club Wilderness Outings in the Sierra Nevada. Consolidated Publications Inc., Palo Alto, CA.
- Status of the Sierra Nevada. 1996. Assessment and Scientific Basis for Management Options. Volumes II and III. Univ. of California, Davis.
- Strand and Eddinger 2000. Status of Paiute cutthroat trout (*Oncorhynchus clarki seleniris*) on the Sierra National Forest. Sierra National Forest, Clovis, CA. 21pp.



- Sumner, Lowell; and R. M. Leonard. 1947. Protecting Mountain Meadows. *Sierra Club Bulletin*, 32(5), 1947.
- Stevens, Nathan Erik. 2002. Prehistoric Use of the Alpine Sierra Nevada: Archaeological Investigations at Taboose Pass, Kings Canyon National Park, California. MA thesis, Department of Anthropology, California State University at Sacramento
- Steward, J. H. 1933. Ethnography of the Owens Valley Paiute. *University of California Publications in American Archaeology and Ethnology*, 34(3):355-440. University of California Press, Berkeley.
- Suk T, Sorenson S, Dileanis P: The relation between human presence and occurrence of *Giardia* cysts in streams in the Sierra Nevada, California. *J Freshwater Ecology* 1987;4(1):71-75
- Theodoratus Cultural Research, Inc. 1984. Cultural Resources Overview of the Southern Sierra Nevada: An Ethnographic, Archaeological, and Historical Study of the Sierra National Forest, Sequoia National Forest, and Bakersfield District of the Bureau of Land Management. USDA Forest Service Contract No. 53-0JCP-1-66.
- University of California, SNEP Science Team and Special Consultants. 1996. Air Quality. Chapter 9 in Sierra Nevada Ecosystem Project. Status of the Sierra Nevada: Final Report to Congress.
- U.S. Census Bureau. 2000. Profile of Selected Economic Characteristics and People Quickfacts. Available from [www.factfinder.census.gov](http://www.factfinder.census.gov)
- U.S. Department of Labor, U.S. Bureau of Labor Statistics. 2004. Local Area Unemployment Statistics. Accessed via NRIS Human Dimensions Database.
- USDA Forest Service 1955 Proposed National Park Extension Minarets-Reds Meadow Area; Sierra and Inyo National Forests, California.
- USDA Forest Service. 1972. Wilderness Policy Review. For Official Use Only. John R. McGuire Chief of Forest Service
- USDA Forest Service. 1994. Neotropical migratory bird reference book Volume 1. USDA Forest Service. Pacific Southwest Region Fisheries and Wildlife. Vallejo, CA.
- USDA Forest Service. 1995a. FSH 2509.18 – Soil Management Handbook. R5 Supplement No. 2509.18-95-1
- USDA Forest Service. 1995b. Soil survey: Inyo National Forest, West Area, California. June 1995.
- USDA Forest Service. 1996. Sierra Nevada Ecosystem Project: Final report to Congress. Davis: Univ. Calif. Centers for Water and Wildland Resources.
- USDA, Forest Service. 1997. FSH 2209.13 – Rangeland Analysis and Planning Guide, Forest Service, Pacific Southwest Region, Vallejo, CA.
- USDA, Forest Service. 1999. “Sierra Nevada Ecosystems in the presence of Livestock”, A Report to the Pacific Southwest Region, USDA, Forest Service. Pacific Southwest Region, Vallejo, CA. March 22, 1999.

USDA Forest Service. 2000. Investigating Water Quality in the Pacific Southwest Region – Best Management Practices Evaluation Program: A User's Guide. Pacific Southwest Region, Vallejo, California.

USDA Forest Service. 2002. Great Gray Owls – Information compiled by John C. Robinson, USDA Forest Service-13 June 2002. Pacific Southwest Region Regional Office. Vallejo, CA. 1 p.

USDA Forest Service. 2004. Unpublished student research paper by A. Thoyre. Patterns of pack stock impacts in alpine meadows in the Sierra Nevadas.

USDA Forest Service. Various Dates. Sierra and Inyo National Forest Files, 2200 and 2700. Clovis, CA and Bishop, CA. Including:

USFS. 2005. Project File, Trail and Commercial pack Stock Management In the Ansel Adams and John Muir Wildernesses, Specialists Reports. Inyo and Sierra National Forests. Bishop and Clovis, CA.

USFS. 1998. Letter to 2200 File. Evaluation of Hilgard and Rose Marie Meadows. Sierra National Forest. Prather, CA.

USFS. 1992. Letter to 2230 File. Functional Assistance Trip- John Muir Wilderness. Sierra National Forest. Prather, CA.

USFS. 1988. Grazing prohibitions, John Muir Wilderness. Sierra National Forest. Fresno, CA.

USFS. 1987. Allotment Management Plan, Fish Creek/Upper Mono. Sierra National Forest. Prather, CA.

USFS. 1961. Range Management Plan, Jackass Allotment. Sierra National Forest. Prather, CA.

USFS. 1990. Wilderness Meadows Assessment and monitoring program. Inyo and Sierra National Forests, submitted by T.A. Roberts. Bishop and Clovis, CA.

USDA Forest Service. Region 5. 2004. Unpublished report by Dave Weixelman and Gail Bakker. USFS Region 5 Range Monitoring Project, 2004 Report cd.

USDA Forest Service. Region 5. 1999. Sierra Nevada Ecosystems in the Presence of Livestock. A report to the Pacific Southwest Station and Region, USDA, Forest Service (SNFPA).

USDA Forest Service. Inyo and Sierra National Forests. 2001. Programmatic Agreement: Controlling Impacts on Historic Properties; Management of Ansel Adams, John Muir, and Dinkey Lakes Wildernesses, Sierra and Inyo National Forests

USDA Forest Service. Inyo and Sierra National Forests. 2004. Report to Congress. Management Review: Commercial Pack and saddle Outfitter and Guiding John Muir, Ansel Adams, and Dinkey Lakes Wildernesses of the Inyo and Sierra National Forests.

USDA Forest Service, Inventory and Monitoring Institute, and Michigan State University. 2003. Spending Profiles of National Forest Visitors.

USDA Forest Service. Inyo National Forest. 1974. Wilderness Resource Study, Bishop Creek Planning Unit.

- USDA Forest Service. Inyo NF. 1982 (4/12/82). Unpublished report by Jon Oatman. Wilderness Grazing Report. Mono Lake Ranger District.
- USDA Forest Service. Inyo National Forest. 2003a. Wilderness Permit Data.
- USDA Forest Service, Inyo National Forest. 2003b. Day Use Study
- USDA Forest Service, Inyo National Forest. 2003. National Visitor Use Monitoring Results.
- USDA Forest Service. Inyo National Forest. 2004. National Forest Tally Sheet Data, 2000-2004.
- USDA Forest Service. Inyo National Forest. 2004. A study of packstock grazing study and associated disturbance in Yosemite toad breeding habitat. Unpublished report on file Inyo National Forest Supervisors Office. 19p.
- USDA Forest Service. Inyo National Forest. Undated. Campsite Data.
- USDA Forest Service. Inyo National Forest. Various years. Rare plant files. Bishop, CA.
- USDA Forest Service. Sierra National Forest. 2003. Wilderness Permit Data.
- U.S. Department of the Interior (USDI), Bureau of Land Management. 1998. Riparian Area Management: A user guide to assessing proper functioning condition and the supporting science for lotic areas. Technical Reference 1737-15.
- U.S. Department of the Interior (USDI). 1999. TR 1737-15. A User Guide to Assessing Proper Functioning Condition and the Supporting Science for lotic Areas. USDI, Bureau of Land Management; USDA, Forest Service; USDA, Natural Resources Conservation Service. Bureau of land Management National Business Center, Denver, CO.
- USDI Fish and Wildlife Service. 2004. 12-month Finding for a Petition to List the West Coast Distinct Population Segment of the Fisher (*Martes pennanti*). Portland , Oregon. Federal Register 69:18769.
- USDI Fish and Wildlife Service. 2002. Endangered and threatened wildlife and plants; 12-month finding for a petition to list the Yosemite toad. Federal Register Vol. 67, No. 237, p 75834-75842.
- USDI Fish and Wildlife Service. 2000. Proposed Rule to list the Sierra Nevada Bighorn Sheep.
- USDI Fish and Wildlife Service. 1999. Proposed Rule to list the northern bald eagle. Federal Register. July 6, 1999. Vol. 64, No. 128. pp 36453 – 36464.
- USDI Fish and Wildlife Service. 1982. Habitat suitability index models: Yellow warbler. Habitat Evaluation Procedures Group, Office of Biological Services. U. S. Fish and Wildlife Service. Fort Collins, CO. 9p.
- van Wagtenonk, Jan W.; Parsons, David J. 1996. Wilderness Research and Management in the Sierra Nevada National Parks. Reprinted from: Halvorson, William L.; Davis, Gary E. (eds.) *Science and Ecosystem Management in the National Parks*. Tucson, AZ: The University of Arizona Press: Chapter 13: pp 281-294.
- Verner, J. and S. I. Rothstein. 1986. Implications of Range Expansion into the Sierra Nevada by the Parasitic Brown-headed Cowbird. Proceedings, State of the Sierra Symposium.

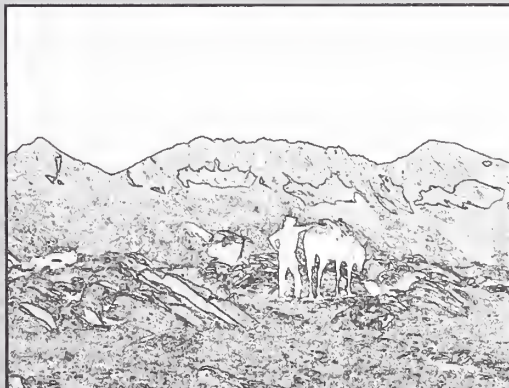


- Warren, S.D., T.L. Thurow, W.H. Blackburn, N.E. Garza. 1986. The Influence of livestock trampling under intensive rotation grazing on soil hydrologic characteristics. *Journal of Range Management* 39(6), November 1986.
- Washburne, R.F. 1982. Wilderness recreational carrying capacity: are numbers necessary? *Journal of Forestry* 80(1):726-728
- Watson, Alan E.; Niccolucci, Michael J.; Williams, Daniel R. 1993. Hikers and Recreational Stock Users: Predicting and Managing Recreation Conflicts in Three Wildernesses. Research Paper INT-468. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Research Station. 35 p.
- Weaver, T. and P. Dale. 1978. Trampling Effects of Hikers, Motorcycles, and Horses in Meadows and Forests. *Journal of Applied Ecology*. 15:451-457.
- Wehausen, J. 2000. Locations of human interface with Sierra Nevada bighorn sheep. Unpublished letter on file Inyo National Forest. 4 p.
- Wheeler, M.A., M.J. Trlica, G.W. Frasier, and J.D. Reeder. 2002. Seasonal grazing affects soil physical properties of a montane riparian community. *Journal of Range Management*. Volume 55: 49-56.
- Whittaker, P.L. 1978. Comparisons of surface impact by hiking and horseback riding in the Great Smoky Mountains National Park. U.S. Department of the Interior, National Park Service, NPS-SER Res./Res. Man. Rep. No. 24.
- Wickstrom, C. Kristina Roper. 1992. A Study of High Altitude Obsidian Distribution in the Southern Sierra Nevada, California. MA Thesis, Department of Anthropology, Sonoma State University
- Wilson, J.P. and Seney, J.P. 1994. Erosional Impact of Hikers, Horses, Motorcycles and Off-road Bicycles on Mountain Trails in Montana. *Mountain Research and Development* 14(1): 77-88.
- Winter, J. 1986. Status, Distribution and Ecology of the Great Gray Owl (*Strix nebulosa*) in California. MS Thesis. San Francisco State University. San Francisco, CA. 121 p.
- Winward, Alma H. 2000. Monitoring the Vegetation Resources in Riparian Areas. General Technical Report USDA, Rocky Mountain Research Station, GTR-47. Ogden, UT.
- Woods, S.H. (1975) Holocene stratigraphy and chronology of mountain meadows, Sierra Nevada, California. PhD dissertation, California Institute of Technology, Pasadena. U.S. Forest Service Region 5, Earth Resource Monogram #4.
- Woelfenden, 1996 in Heritage Resources Program Overview. 1997. Linda A. Reynolds. Inyo National Forest, California and Nevada. Ms. on file at the Inyo National Forest, Bishop.
- Wood, Spencer H. 1975. Holocene Stratigraphy and Chronology of Mountain Meadows, Sierra Nevada, California/USDA Region 5. Earth Resources Monograph 4. USDA Forest Service, Pacific Southwest Region, San Francisco, CA.
- Young, R.A. 1978. Camping intensity effects on vegetative ground cover in Illinois campgrounds. *Journal of Soil and Water Conservation* 33:36-39.
- Zeiner, David D., William F. Laudenslayer, Jr., Kenneth E. Mayer, Marshall White. 1990. California's Wildlife. Volume III, Mammals. California Statewide Wildlife Habitat



Relationships System. State of California, The Resources Agency, Department of Fish and Game. Sacramento, CA. April.

Zielinsky, W. J. 2004. The status and conservation of mesocarnivores in the Sierra Nevada. Proceedings of the Sierra Nevada Science Symposium: 2002 October 7-10; Kings Beach, CA. Gen. Tech. Rep. PSW-GTR-193. Albany, CA: Pacific Southwest Research Station, Forest Service, U. S. Department of Agriculture; pp 185-194.



## Appendix C Response to Comment



# Appendix C Response to Comment

## Introduction

The Draft EIS was available for public review and comment from March 29, 2005, to June 15, 2005. During the comment period, the Forest Service heard from 429 individuals, agencies, interest groups, and elected officials. The agency received approximately 205 individual letters and 224 form letters. Organized response campaigns accounted for more than 50% of the responses received during the public comment period.

Public responses submitted on the Trail and Commercial Pack Stock Management in the Ansel Adams/John Muir Draft EIS were documented and analyzed using a process called content analysis. This is a systematic method of compiling and categorizing all of the public viewpoints and concerns submitted during the official comment period for the Draft EIS. Content analysis helps the Forest Service clarify, adjust, or incorporate additional technical information in preparation of the Final EIS.

All of the comment letters were numbered, read, and logged into a spreadsheet. Each letter was read with individual comments taken out of the letter and organized into a response to comment document. The comments were summarized into public concerns and forwarded to the appropriate specialist who provided a response to the concern raised. All of these public concerns and responses are reassembled into this final response to comment document. Over 300 public concerns were identified from the public's comment letters. In many cases, the public concerns below are summarized from the public's comment letters. In other cases, the public comment letter is directly quoted in the public concern statement. The project record also contains an annotated version of this response to comment including the full comment from the public's comment letter. Each comment also includes a response number or numbers. This number refers to the public comment letter that contained the comment. The project record contains a list of the names and addresses of the individuals, groups, and agencies that commented on the Draft EIS.

## I. Process and Planning

### Pack Stock Use in Wilderness

#### General, Continue pack stock use in the wilderness

**Public Concern #1:** *Pack Stock use in the wilderness should not be reduced/should continue:*

- *Because the damage the animals do to the trails is no more significant than the numbers of people coming in to the area or other uses on public lands. (response #10, 24, 244, 337, 351, 374, 375)*
- *Because there is a historic value to pack stock and stations in the wilderness. (response #form letter A, 10, 26, 27, 32, form letter F, 48, 80, 162, 240, 248, 286, 291, 374)*

- *Because the proposal discriminates against packers and the public that uses their services (response #form letter A, 32, 217, 320)*
- *Because wilderness should be open to all users, not just hikers (response #14, 18, 165)*
- *Because commercial packers are good at practicing leave no trace and often protect the wilderness better than other users. (response #17, 34, 39, form letter F, 43, 73, 217, 271, 277 309, 320, 418, 419)*
- *Because commercial packers help many people facilitate access to the wilderness that would otherwise not be able to make it on their own e.g., handicapped/elderly (response #1, 3, 7, 10, 19, 24, 26, 34, 39, form letter F, 43, 55, 71, 76, 78, 79, 80, 104, 154, 157, 162, 181, 188, 189, 190, 217, 228, 244, 248, 269, 271, 277, 281, 291, 295, 309, 331, 337, 351, 366, 415)*
- *Because commercial packers help to keep trails open for other wilderness users (response #23)*
- *Because most people can not afford to keep their own pack stock for these types of trips (response #23, 248, 382)*
- *Because commercial packers provide support for a number of activities in the wilderness including trail work/maintenance, scientific research, search and rescue, anti-poaching efforts, habitat restoration etc... (response #26, form letter F, 154, 190, 217, 290, 340)*
- *Because excluding commercial pack stock in some areas only leads to a concentration of use in other areas (response #26)*
- *Because restrictions on commercial pack stock will eventually lead to restrictions on private stock (response #27, 273)*
- *Because there should be room in the wilderness for various user groups. (response #form letter F, 43, 63, 283)*
- *Because all studies done in the John Muir, Ansel Adams, and Dinkey Lakes Wilderness areas have determined that the Wilderness as a whole are functioning ecologically better than as the time of the Wilderness designation in 1964. (response #form letter F)*
- *Because the Forest Service has not been able to directly attribute resource concerns to commercial pack station on and in trails, camps, and meadows closed to pack station use, but open for other use. (response #form letter F)*
- *Because there is a demand for these services (response #46)*
- *Because with the significantly changing ethnic and age related demographics, it is imperative that commercial packing remain alive and affordable to the American public. (response #form letter F)*
- *Because as the population increases, demand for packing services will also likely increase. (response #48)*
- *Because closing some areas to commercial pack stock will increase use in other areas, leading to more closnres (response #73)*
- *Because commercial pack stock provide an important tie between people and the land. (response #75, 281)*

- *Because today's professional horse outfitters are our modern day guides still continuing the same traditions. (response #55)*
- *Because pack strings are responsible for much of the trails and infrastructure in the wilderness (response #156, 340)*
- *Because commercial pack stations allow several generations of a family to enjoy the wilderness (response #159)*
- *Because commercial operators can help to keep wilderness users safe (response #165)*
- *Because the DEIS provides no compelling evidence that would support the removal of commercial pack stock from the wilderness. (response #168)*
- *Because of the economic benefits of pack stations to the communities around the wilderness areas. (response # 190, 233)*
- *Because increased regulations will push the price of these trips to a level at which they are unaffordable to the average person. (response # 233)*
- *Because commercial packers provide an important educational service to the public in terms of teaching leave-no-trace, wilderness skills, wilderness ethics, and western heritage to clients. (response # 162, 277, 280, 295, 307)*
- *Because taxpayers have a right to enjoy the areas that are supported by their tax dollars. (response # 281, 388)*
- *Because the government has no right to restrict publicly owned property. (response # 288, 289)*
- *Because the restrictions are a violation of the Constitutional rights of the people of the United States. (response # 285)*
- *Because packing is a great recreational activity that improves physical and mental health. (response # 290)*
- *Because a vocal minority of the public should not dictate public land policy (response # 295, 326, 329, 348, 357, 397, 418)*
- *Because the needs assessment in Appendix D of the document has proven the need for commercial services in the wilderness (response # 423)*

**Public Concern #2:** *Commercial pack stock use of the wilderness should continue at current levels with the appropriate oversight (response #4, 308)*

**Public Concern #3:** *The Forest Service should work with the packers to develop a flexible and adaptive management strategy that will allow the continued operation of these historic businesses while protecting the resources which create the demand for this service in the first place. (response #44, form letter F)*

### **General, Discontinue/limit commercial pack stock use in the wilderness**

**Public Concern #4:** *Commercial pack stock should not be permitted in the wilderness*



- *Because of the impacts of these animals to wilderness resources (response #2, 30, 96, 245, 261, 263, 319, 356, 398)*
- *Because the intention of wilderness is not to support for-profit businesses that cater to people unable or unwilling to meet wilderness on its own terms (response # 319)*
- *Because for those that want to use commercial packers to access the backcountry, there are other options already available (e.g., national parks) (response # 356, 371)*
- *Because a disproportionate amount of resources go to repairing trails that are damaged by stock (response # 356)*

**Response to Public Concerns #1-4:** Many comments were received that provided reasons as to why commercial packing should continue in the Ansel Adams and John Muir Wildernesses. Likewise, a number of comments were received that advocated a reduction or outright removal of these activities from the wilderness. The intent of the EIS is to disclose the environmental effects of the proposed project and display the trade-offs between the different alternatives.

Alternatives 1-4 analyze the effects of varying levels of commercial pack stock use with various control mechanisms. Alternative 5 analyzes the environmental effects of eliminating commercial pack stock in the Ansel Adams and John Muir Wildernesses.

**Public Concern #5:** *The number of commercial pack stock in the wilderness should not be allowed to increase over time. (response #36, 191)*

- *Because as the population of California increases, the demand on the wilderness will increase (response #65)*
- *Because commercial pack use is not compatible with other users (response #66, 93, 172, 254, 257, 284, 299)*
- *Because this use is damaging to resources in the wilderness (response #70, 99, 158, 171, 172, 178, 182, 187, 209, 211, 212, 215, 247, 249, 254, 257, 299, 305, 306, 313, 316, 368, 370, 386, 393)*
- *Because the overall wilderness experience is diminished by large commercial pack groups (response # 305, 306, 312, 386)*
- *Because stock animals damage trails and because of dust, smell, sight, and sound adversely affect the experience of other users (response # 312, 316, 353, 386, 393)*
- *Because water resources and meadows are damaged by pack animals (response # 305, 353, 370, 378, 381, 393)*
- *Because stock animals do far more damage to the wilderness hikers (response # 306, 400)*
- *Because commercial pack stations facilitate the access of large groups into areas that should be used only by smaller groups (response #99)*
- *Because wilderness areas should serve as refuges from civilization (response # 310, 312, 386, 390)*
- *Because future generations should have an opportunity to enjoy these wilderness areas undamaged (response # 313)*



- *Because the noise and accouterments associated with commercial pack parties are not compatible with wilderness (response # 316, 353)*
- *Because of the amount of debris left behind in the wilderness from these parties (response # 316, 353, 393)*
- *Because commercial packing is an ill-informed historical activity that should be (and mostly is) obsolete. (response # 367)*
- *Because the argument that commercial pack stock provide access for people who couldn't otherwise access the wilderness does not reflect reality. I (response # 367)*
- *Because stock are often left unattended to roam freely, both damaging the environment and adversely affecting the wilderness experience of others (response #370)*
- *Because horses are not natural to the High Sierra environment (response # 390)*

**Response:** The environmental document will analyze various levels of commercial pack stock along with different control mechanisms too help off-set the environmental effects of this activity. The ideal use is that which meets the public need for the services and protects the wilderness character of the area. Whether this use level is more or less than some point in the past is not the issue we are examining, rather it is the extent that needed services can be provided while at the same time preserving wilderness character.

**Public Concern #6:** *Overnight holding of stock in the wilderness should not be permitted. (response # 201)*

**Response:** Analysis of the effects of overnight holding of stock can be found throughout Chapter 4. The wilderness, hydrology and vegetation sections describe effects to these resources at campsites and by grazing.

**Public Concern #7:** *Commercial pack stock services should only be made available to clients who truly need them (handicapped/other special populations). (response #form letter C, form letter E, 209, 257)*

**Response:** See response to Public Concern #5

## Equity

**Public Concern #8:** *The commercial packers and non-commercial users should be treated equally in the wilderness areas. (response #form letter C, form letter E, 33, form letter B, 54, 65, 7098, 99, 105, 109, 175, 182, 209, 220, 247, 284, 417)*

**Response:** The Preferred Alternative in the FEIS allocates use to commercial pack stock operators based on destination quotas. They would no longer be a part of the daily trailhead quota. Consequently there will be no competition for access between the pack stations and other users. In addition several site specific restrictions will be implemented to manage commercial pack stock such as grazing limits, and designated stock camps. While these management controls may be perceived as treating users differently, they are deemed appropriate based on differential user impacts and necessary to meet wilderness objectives.

**Public Concern #9:** *The Forest Service should not let one user group degrade the wilderness experience (including the trail system) for other users (response # 178).*

**Response:** The Preferred Alternative and all the other alternatives in the FEIS comply with the goals and objectives set forth by law, regulation, Forest Plans and more specifically the 2001 Wilderness Plan. An analysis of the impacts of the commercial pack stock on the trail system is located in the Environmental Consequences section (DEIS pg. IV-30).

**Public Concern #10:** *The current permit/quota system unfairly denies noncommercial users access to particular trails through trailhead quotas while commercial users have rarely been denied. (response # 196)*

**Response:** Further analysis of the access equity issue and analysis of quota availability can be found in the Chapter 3 "Wilderness" section of the Final EIS. Data shows that commercial and non-commercial quotas fill at a comparable rate. There is no indication that since 2001 the general public has been turned away while the commercial pack station client has not. Wilderness Plan trailhead quota numbers were fully implemented in 2004. Therefore, it is only reasonable to compare quota numbers from 2004. In 2004, with few exceptions there were very few differences in access and availability. See discussion in Chapter 3.

Regardless of who gets turned away because of quota limitations, the objective laid out clearly in the preferred alternative is to maintain certain conditions. Amount of use is only one piece of maintaining conditions, and is arguably more of a social issue than a resource issue. The frequency or occurrences of filling quotas is one of many pieces of information that inform decision makers.

## Legal Considerations

**Public Concern #11:** *The DEIS should address consistency with the ADA as any reduction or elimination of stock packing is a violation of the ADA. (response # 188, 267)*

**Response:** There is no additional information provided in the comment (case law, specific statutes in the law) that would indicate that the reduction or elimination of commercial pack stock is a violation of the Americans with Disabilities Act (ADA).

Furthermore, ADA does not directly apply to programmatic plans such as this. ADA or related statutes may apply to subsequent actions taken to implement the management direction.

**Public Concern #12:** *The Forest Service should recognize that RS-2477 is a valid claim to public right of way and that a pack animal or vehicle of any type merely passing over a long time existing route is considered minimum maintenance according to the law. (response #37, 259)*

**Response:** RS-2477 is a law from the mid-1800s and is quite complex. It involves the rights of individuals to use roads constructed prior to the reservation of lands for public purposes. This project is proposing to establish a trail system in the Ansel Adams and John Muir Wildernesses as well as set levels and locations for commercial pack stock use. The provisions contained in RS-2477 are not being violated by the actions proposed in this project.

## Legal Considerations, Wilderness Act

**Public Concern #13:** *The Forest Service is violating the Wilderness Act*

- *Because these are designated wilderness areas, the Forest Service has the obligation to manage them in such a way that their wilderness character is not impaired. (response #102, 230)*

- *Because the very presence of stock animals in wilderness areas is a violation of the Wilderness Act. (response #169)*
- *Because outfitting and guiding are commercial activities and commercial activities are prohibited in wilderness except "to the extent necessary for activities which are proper for realizing the recreation or other wilderness purposes of the areas." (Wilderness Act). (response # 172, 185)*

**Response:** The purpose and need (Chapter 1) clearly states the agency's intention to follow the legal constraints of the Wilderness Act. It is clear that one of the public's primary concerns associated with commercial pack stock in the wilderness is the consistency of this activity with the intent of the Wilderness Act. In light of this, Chapter 4 "Wilderness" examines the effects to wilderness character by alternative and concludes that only Alternative 1 "No Action" could be construed to not meet the legal threshold for wilderness character. The Record of Decision further clarifies how the decision-makers consider the legal requirements of the Wilderness Act and how their selected management direction will meet these legal requirements.

**Public Concern #14:** *The Forest Service should retain the historical uses of the 1964 and 1984 Wilderness Acts that preserve historical uses of the land especially packing and commercial grazing. (response #37, 80, 259)*

**Response:** The agency does not interpret the Wilderness Act to mean that 1964 conditions and uses will not be subject to management. Forest Service policy states "Each wilderness should be at least as wild in the future as at the time of classification. Resource impacts shall be decreased or held constant. Conditions shall always be improved in situations where degradation exceeds wilderness resource criteria as defined by the designating legislation." (FSH 2309.19 21.1) The agency intends to "preserve wilderness character" provide an enduring resource of wilderness and protect these areas as wilderness over time. However, the agency, in formulating its alternatives has considered the values of historical uses. Many references to historical uses and baseline conditions in 1964 can be found in the "Commercial Pack Stock Operations" section in Chapter 3 and the "Wilderness" section of Chapter 4.

**Public Concern #15:** *The Wilderness Act does not allow a balancing of economic benefits and preservation of wilderness character. (response # 196)*

**Response:** The alternatives are not written with the intent of balancing the economic desires of commercial pack stations with the preservation of wilderness character. The formulation of alternatives is driven by the Purpose and Need for action and the public issues that are brought forward and significant to the decision. Alternatives provide different means to manage packstations: some more restrictive and some more direct. The underlying goal is to manage wilderness character, of which recreation use and enjoyment is one consideration. The public did identify economics as an issue that should be considered in the decision (see Chapter 1 – Issues), and for that reason it is considered and addressed in the analysis.

**Public Concern #16:** *The Forest Service is misinterpreting the definition of wilderness by claiming that the absence of pack stock will cause a loss in wilderness character. (response #196)*

**Response:** In Chapter 4, "Wilderness Resource" wilderness character is examined using four elements from the 1964 Wilderness Act (untrammeled; naturalness; undisturbed; opportunities for solitude and primitive and unconfined recreation). The discussion addresses how one element



of wilderness character may be impaired while others are being met or achieved. This discussion of wilderness character qualities does not conclude that commercial pack stock categorically will create a loss of wilderness character. This comment takes the statement out of context. There are some elements, specifically “unconfined and primitive recreation”, that would be diminished or impaired as a result of some of the proposed management direction in the alternatives.

**Public Concern #17:** *The Wilderness Act does not allow for the elevation of solitude over other wilderness values (e.g., public recreational use of the wilderness). (response # 198)*

**Response:** See response to Public Concern #16. Four elements from the Wilderness Act were used to examine the effects to wilderness character. Opportunities for solitude were only one of these. The analysis does not value or weigh this quality over the others. The methodology section of Chapter 4 “Wilderness” has been modified to clarify how the analysis utilizes the concept wilderness character.

**Public Concern #18:** *The Proposed Actions violate the Wilderness Act by limiting the freedom and flexibility of commercial pack stations and their clients (response # 275)*

**Response:** The Wilderness Act specifically states that designated wildernesses are to be managed for “outstanding opportunities for solitude or a primitive and unconfined type of recreation” (Sec. 2(c)(2)). It does not specify that controls cannot be taken to preserve the other conditions specified in that same section. Forest Service policy on wilderness management is to “Maximize visitor freedom within wilderness. Minimize direct controls and restriction. Apply controls only when they are essential for protection of the wilderness resource and after indirect measures have failed” (FSM 2323.12 (1)). The Forests have identified unacceptable conditions where pack stations use occurs under many years of “indirect controls.” Research indicates that direct controls can be useful in managing the types of impacts that were identified in the planning area. Chapter 4 “Wilderness Resource” describes the research and the effects of direct versus indirect controls.

**Public Concern #19:** *To the detriment of commercial pack stations, the Forest Service is incorrectly interpreting the Wilderness Act (response # 273, 276, 278)*

**Response:** It is not clear from the comment how the Forest Service is incorrectly interpreting the Wilderness Act. See response to Public Concern #13.

## **Consistency with Forest Plan and Other Agency Direction**

### **Inyo Forest Plan**

**Public Concern #20:** *The Needs Assessment fails to mention direction regarding pack station permits in the Inyo National Forest Land and Resource Management Plan (1988; at p. 110) and should affirm that no new commercial packing operations will be permitted in the planning area. It also must demonstrate that the existing numbers are necessary and proper. (response # 196)*

**Response:** The Inyo National Forest’s LRMP was amended by the 2001 Wilderness Plan. The accompanying Needs Assessment analyzes the need for commercial services and the FEIS addresses the effects of the proposed service levels on the resource. The Record of Decision provides rationale, based on information and the analysis in the FEIS, to demonstrate the selected alternative meets the “extent necessary” standard.

## 2001 Wilderness Plan

**Public Concern #21:** *The 2001 Wilderness Plan provides adequate direction for commercial pack stock use. (response # 175, 262, 375, 423)*

**Response:** The District Court directed the Forest Service to examine the cumulative impacts of commercial pack stock operations prior to issuing permits, and to specifically address trail suitability, designated stock camps, stock numbers and group size. A two-step NEPA process was identified. This led the Forests to complete programmatic direction (this FEIS) first, which, by definition, re-examines the 2001 Wilderness Plan. The purpose and need (described in Chapter 1) narrows the scope of the analysis to additional standards needed for commercial pack stock operations and the development of a trail plan. This direction will amend portions of the 2001 Wilderness Plan.

## Ninth Circuit Court Order

**Public Concern #22:** *The DEIS should acknowledge the entire scope of the Ninth Circuit Court of Appeals ruling in High Sierra Hikers vs. Blackwell including the Court's finding that the agency misinterpreted the Wilderness Act, and that its 2001 Wilderness Plan (and other proposals, including its June 2004 Proposed Action) were founded on those incorrect interpretations of the Wilderness Act. (response # 196)*

**Response:** The Needs Assessment and FEIS take into consideration the Ninth Circuit's ruling in *High Sierra Hikers v. Blackwell*. The FEIS "purpose and need" clearly identifies that preserving wilderness character is the agencies first and foremost responsibility.

## Other Agreements

**Public Concern #23:** *We would hope that the decision reached by the Forest Service would build on and incorporate the discussions and agreement reflected in the MOU signed in February 2005 between the Forest Service and Eastern High Sierra Packers Association. A great deal of work went into that document and it is disturbing to see that it is not reflected in the DEIS. (response # 325)*

**Response:** The Forest Service has attempted to comply and address the commitments made in the Memorandum of Understanding (MOU). That MOU commits the Forest Service to planning process items but does not influence or affect the Forest Supervisor's decision-making authorities or responsibilities. The ROD is not influenced or directed by anything in the MOU.

## NEPA Considerations

**Public Concern #24:** *The No Action Alternative (I) is flawed because it does not reflect the status quo of the 2001 Wilderness Plan modified by Court Order. The DEIS should have used the service day allocations that represent current actual use (not arbitrary past allocations), minus 20% as intended by the District Court, in addition to reductions in group size and other court-ordered modifications to the 2001 Wilderness Plan as the no action alternative (response # 196)*

**Response:** The No Action Alternative is correctly identified in the DEIS as implementation of the Wilderness Plan. NEPA requires that a no action be analyzed. The no action direction has been interpreted to mean that the proposed action does not take place and the environmental effects of taking no action are compared with the effects of permitting the proposed activity or



one of the alternatives to take place. We considered the options for the No Action Alternative and concluded that to assume the Court Order injunctive relief to be the existing programmatic direction was not justifiable. This is because the injunctive relief has a limited time and scope and ultimately it is the Wilderness Plan that is in place in the absence of new direction, not the court order.

**Public Concern #25:** *I have worked as an environmental professional for more than twenty years, and have reviewed literally hundreds of environmental documents, and authored dozens. Frankly, this one is nearly the worst I have ever seen, and possibly the worst. It is poorly organized, there are numerous typos that render its meaning unclear, and its conclusions are not clearly stated. It is shoddy work, and frankly, I would be embarrassed if it came out of my shop. I say these things not to criticize unconstructively, but to point out that the DEIS does not meet the intent of NEPA to inform decision-makers and the public about the issues, alternatives, and environmental consequences. It took many hours of careful study to decipher the document, and I'd bet a fair amount of money that your decision makers did not get through it. (response #346)*

**Response:** The Draft EIS fielded considerable comments that demonstrate that many people were able to understand the agencies proposed management direction and provide extensive input on the analysis. In the Final EIS, considerable effort has been made to clarify points of confusion, and enhance the analysis where staff and public have noted deficiencies. It should be noted that the size and complexity of the analysis area, combined with the specific requirements of the court have led to a more complicated document in order to comply with the court order.

**Public Concern #26:** *The DEIS does not comply with NEPA/Wilderness requirements because a number of relevant concerns are not addressed including: (all comments are from response # 275)*

- *Larger group sizes are not evaluated. The Forest Service has never looked at the environmental consequences of increasing group size. The Forest Service maintained that large groups are socially unacceptable. They never have studied the affect on the environment.*

**Response:** It is very difficult to demonstrate that larger party size has fewer impacts than smaller group sizes. Research indicates that although larger parties may, in some situations have less impact than multiple smaller parties, in most situations this is not the case. (Monz et al 2000 check)

In order to focus the analysis, NEPA requires the agency to address significant issues. The District Court had enough concern that existing party size was a source of environmental impact, that it did not seem prudent to expand the range of alternatives to include direction we felt would not meet the stated purpose and need. Chapter 4 – Wilderness discusses the social and environmental effects of party size.

- *The baseline is improperly defined. Fails to compare the past with the present and evaluate. The document should compare the conditions on the land today and compare that to the conditions of the land twenty to forty years ago.*

**Response:** There is little data on the conditions of these wildernesses from twenty to thirty years ago, so it was not possible to use this timeframe as a baseline. Chapter 3 – Wilderness includes what little published references exist on resource conditions from the past, including Snyder (1962) and Sierra Club Impact Study (1977). There exists many opinions, recollections, and anecdotal information but this would not meet any substantive standards for NEPA analysis.

- *Improper use of use numbers. We recommend that instead of using numbers for 2001, 2002, 200, you go back and include the numbers for the 1980's and 1990's. We have excellent data from the 1940's on that the Forest Service doesn't consider.*

**Response:** Accurate historical data from the 1980s and 1990s does not exist for the entire planning area. Historical records from one or two pack stations have limited value when looking at planning area-wide trends. The Final EIS brings in as much data on use from as far back as is possible to show trends. This does not allow us to do anything more than show trends.

- *Day use impacts are not analyzed. Throughout the document it states heavy day use is having impacts. Doesn't mention means to mitigate or prevent damage.*

**Response:** In areas where the impacts of day use is a relevant effect to consider in the analysis (such as Little Lakes Valley), it is considered as a part of the cumulative effects. Additional information on the level of existing day use (both hiking and riding) is provided in Chapter 3. The scope of the analysis and the proposed direction is on commercial packstock, and does not intend to provide management direction on all issue and all impacts (see Chapter 1 – Purpose and Need).

- *Elimination of service days is not adequately analyzed. Under the 2001 John Muir Wilderness Plan there was considerable historical background. The public and agency could compare and contrast proposed alternatives with a variety of service day allocations. This DEIS proposes use changes that I can't even figure out what numbers of people will be allowed in the three wildernesses.*

**Response:** The comment is correct, there is some difficulty in assessing different mechanisms of limiting use. There is no direct quantifiable comparison between the mechanism of service days and destination quotas. Each alternative clearly details what levels of use occur, but what is confusing is that the mechanism changes and has different effects. Chapter 4 – Wilderness explains the expected effects of the different mechanisms.

- *Improper analysis of the types of trips. The impact to the land and social effect may be as high of a dunnage trip as it is a full service trip. However, the Forest Service doesn't want to recognize the impact of increasing spot and dunnage trips. The proposed alternatives need to at least suggest the environmental effects of the proposed changes. Unfortunately, it just isn't done in this DEIS.*

**Response:** The analysis does distinguish the different impacts of spot, dunnage and traveling (all expense) trips. However the conclusions reached in the EIS differ from the conclusions reached by this commenter. All expense trips are considered to have more impact than other types of trips because these trips tend to include large stock numbers, use larger campsites for larger parties, and hold and graze stock overnight in the wilderness. For these reasons, the all expense trips are viewed to have more cumulative impacts than spot and dunnage trips.

- *Reducing grazing will cause increased amount of stock on the trail to haul in cubes. Fails to show that the campsites and surrounding areas will be thrashed and have considerable damage. Forest Service fails to disclose the advantages of loose free grazing instead of having stock tied to pickets.*

**Response:** This has been noted and is included in the Chapter 4 Wilderness discussion.

- *Permanent camps should be analyzed in the document. The Forest Service is allowing and will essentially be making designated campsite a permanent camp in the wilderness. This is not being adequately disclosed.*

**Response:** The designated sites proposed will not have any permanent structure associated with the camp. They are typically camps that have been used for these activities for years, and in many cases decades. Some of the camps will need to be set back from water or have access trails improved to meet standards. To the extent that this makes them “permanent”—in other words to be used on a regular basis—is disclosed in the Chapter 4 Wilderness and Physical Resources sections.

## Needs Assessment

**Public Concern #27:** *The Needs Assessment is inadequate and does not provide an analysis of the extent necessary for these commercial services. (response #106, form letter B)*

**Response:** Additional data was collected and analyzed during the 2005 operating season to better document the public’s need for these services and the extent to which commercial pack stock services are necessary. The results and further analysis have been incorporated into the FEIS needs assessment. Protection of the wilderness character is addressed both in the FEIS as well as the needs assessment for all commercial use alternatives.

**Public Concern #28:** *The Forest Service indicates in the Needs Assessment that that the proportion of commercial packstock use relative to overall use in the AA/JM Wildernesses has been allowed to grow by fully 60 percent in the last 25 years. No rationale for this significant change in the use allocation among the different recreational user groups is provided in the Needs Assessment. Given that the presumption in the Wilderness Act is not to allow commercial uses of the National Wilderness Preservation System, and that an exception is made to allow commercial uses ONLY to the extent deemed necessary and proper for realizing the recreational purposes of wilderness, it would seem that the agency should be extremely vigilant so as not to allow the proportion of commercial uses to grow without clear justification. No justification is provided. Yet a number of studies by U.S. Forest Service personnel over the years have documented significant damage to wilderness resources due to packstock use of the Ansel Adams and John Muir Wildernesses, indicating that it may be appropriate to reduce proportionate levels of commercial packstock use, not increase it. (response # 106)*

**Response:** The comment on the proportion of commercial use of the total use illustrating a 60 percent increase in the last 25 years is inaccurate. Five percent of the total use in 1979 was based upon a higher total use number before general public trailhead quotas were implemented. The recent higher percent (8 percent) of commercial pack stock clients is based upon a relatively overall lower total wilderness use number. According to use data presented in the John Muir Wilderness Plan (1979), from 1972 to 1976, the total use averaged 84,873 people. Five percent of that number is 4,244 people, which would represent the average annual number of commercial pack stock clients during the 1970s. For the years 2001-2004, the average number of pack station clients for both the Ansel Adams and John Muir Wildernesses was 4,783. The John Muir Wilderness portion in 2001-2004 averaged only 3,319 clients. This is an average of 925 fewer clients or a 22 percent reduction between the 1970s and 2000, which supports the needs assessment and FEIS conclusions that pack station use has decreased following the 1964 Wilderness Act. This contention is further supported by the 1979 John Muir Wilderness Plan (page 6): “Nineteen commercial packers serve the John Muir Wilderness. Most of these operate



out of facilities located near the trailhead they use. Commercial pack stock use has not increased appreciably over the past two decades.” And, the 1979 Minarets Wilderness Plan (page 5) states, “Commercial pack and saddle stock use has remained static or has even declined slightly during the past decade.” There is no credible data to support the claim that commercial pack stock use has been allowed to increase significantly in these wildernesses, or to support that there has been a 60 percent increase from 1970s to present.

The Forest Service is unaware of a “number of studies by U.S. Forest Service personnel over the years that have documented significant damage to wilderness resources due to packstock use of the Ansel Adams and John Muir Wilderness.” Anecdotal wilderness ranger reports do not constitute studies or even credible resource impact reports, as these personnel are generally not qualified to professionally assess resource conditions. In fact, the only comprehensive or credible studies of commercial pack stock impacts in these wildernesses has been completed only recently by the Forest Service interdisciplinary team that prepared this DEIS and FEIS between 2001-2004. The conditions found are fully documented in the FEIS, and do not support the significant damage conclusion. The FEIS and ROD propose management actions to fully correct or mitigate any site-specific, localized impacts associated with commercial pack stock use. Use impacts by all wilderness users (commercial pack stock combined with the general public) at the wilderness and geographic scale is characterized from not measurable or adversely affecting the wilderness character according to the FEIS.

**Public Concern #29:** *The Needs Assessment does not adequately demonstrate a need for commercial services in the wilderness. Some of the need categories do not reflect a need at all. An example of this is people needing pack support because their equipment is too heavy. The Needs Assessment must also specify the need required for particular types of commercial horsepacking services (i.e., spot, dunnage, full-service, re-supply, day rides etc.). Each of these commercial enterprises is unique, and the findings required by the Wilderness Act must be made for each. (response # 196, 201, 347)*

**Response:** The “categories of need” in the needs assessment were developed based upon activities that are wilderness-consistent and dependent, and proper in a wilderness setting. Commercial packstock are needed to support visitors who have heavy equipment or persons poorly conditioned. They are also needed to allow persons to access and enjoy these areas that do not own or have access to packstock or possess the knowledge or skills to use or handle such animals in a wilderness setting. Segments of the public that need commercial pack stock support to realize their wilderness experience have day use, overnight spot and dunnage, and traveling trip needs. There is no requirement to establish that the use of heavy equipment is “necessary” or that poorly conditioned individuals are “necessary,” only that the activities are proper.

Data was collected on commercial packstock clients and packers during the summer of 2005 to help establish the “need” and “extent necessary” for commercial services; this data has been used in the preparation of the FEIS needs assessment and analysis.

**Public Concern #30:** *The Needs Assessment does not specify an operational definition of “necessary” for the analysis, and appears to assume that demand and desire equate to need. (response # 196)*

**Response:** The FEIS needs assessment contains a definition and discussion of “need” and “necessary.” The Forest Service agrees that demand and desire do not equate to need or necessary in the context of this needs assessment.

**Public Concern #31:** *The Needs Assessment unnecessarily advocates the historical importance of commercial horsepacking, and distorts the historical record in its attempt to promote commercial packstock enterprises. An egregious example of the bias demonstrated by the Forest Service is its attempt to portray John Muir as a supporter and user of horses. Muir was undoubtedly the greatest advocate of foot travel in his day. He despised horses, and also strongly believed in traveling alone in the wilderness. This should be noted alongside the photo.* (response # 196)

**Response:** The historical background of commercial pack stock using these two wildernesses is relevant to the needs assessment, as it establishes the history and past use practices for these areas. The history section of the needs assessment has been updated and revised in the FEIS.

The photograph of John Muir on horseback was used to illustrate that pack stock support was historically common in these wildernesses and adjacent areas, even by John Muir himself. And, while the comment takes strong exception with using this illustration, there is ample evidence to support retaining it in the document. Some examples to illustrate that John Muir regularly used horses and mules follow: “After his initial eight-day visit, he returned to the Sierra foothills and became a ferry operator, sheepherder and bronco buster” (“John Muir” from *Wikipedia, The Free Encyclopedia*, p. 1); “John Muir met me with a couple of packers and two mules to carry our tent, bedding, and food for a three days’ trip.” (“Theodore Roosevelt, An Autobiography” from *Outdoor and Indoors*, Chapter IX(1913)); “Here we made our first camp and arranged with Mr. Longmire, a farmer in the neighborhood, for pack and saddle animals.” (“An Ascent of Mount Rainier,” Chapter 20 of *Steep Trails* by John Muir (1918)); “All mules have their fear of bears before their eyes and are marvelously acute in detecting them, either by night or day”; (*South of Yosemite; Selected Writings of John Muir*, by John Muir, ed. Frederic R. Gunsby (1968)); and, “So it would seem that the big traveling trips through the wilderness such as initiated by the Sierra Club in that first annual outing, should be continued, by whatever organizations may be qualified to conduct them. The argument that John Muir presented remains essentially valid. If we want mountain wilderness—the spacious scenic wilderness that means something—we must make it known to the men who, knowing it will protect it. Those who like best the Spartan of wilderness trips—cross country backpacking—must make haste slowly in any attempts to impose such trips upon others, or there may be too few men in the wilderness to protect it.” (David R. Brower’s “Are Mules Necessary?” 1948 Sierra Club Bulletin Article). As illustrated in David Brower’s article, it is well documented that the Sierra Club annual outings started by John Muir commonly used several hundreds horses and mules to support several hundred members. This practice went well into the 1960s. These examples seem to refute the notion that, “He (John Muir) despised horses, and also strongly believed in traveling alone in the wilderness.” At a minimum, he apparently found packstock needed and necessary for wilderness travel from time to time. The agency has been unable to find any evidence to support the comment’s contention that “Muir was undoubtedly the greatest advocate of foot travel in his day.”

The commenter seems to be offended by the tone of some of the DEIS and needs assessment, stating, “...the Forest Service comes across as the foremost advocate of the commercial packers.” In fact, the Forest Service considers and attempts to treat permit holders authorized to provide outfitter and guide services to the public as “partners.” The Forest Service’s Outfitter-Guide Administration Guidebook states that “the reasons to allow outfitting in an area are to assure that the public has reasonable access to National Forest opportunities, that the use



resulting from it is of the highest quality, that the resources are protected, and that the client learns the unique attributes of the environment.” While there are sometimes disagreements, difficulties, or issues between the Forest Service and outfitter-guides, the fact remains that the two parties exist to serve the public and both have responsibilities for protecting the resources. The Forest Service is generally proud of the role of and services provided by pack stations; and, although work remains in terms of providing better wilderness protection in some areas of these wildernesses, it does not justify downplaying their importance to segments of the public that need their services.

**Public Concern #32:** *The Needs Assessment must analyze and determine what levels of commercial horsepacking use are truly necessary and proper, not attempt to justify existing levels of commercial pack stock use and the agency's desire to allow expansion of that use. The fact that the Forest Service used the latter approach in the Needs Assessment is revealed on page 1: “[Part I of the Needs Assessment] provides the evaluation and rationale for why the selected commercial pack stock service levels decided upon meet the Forest Service's overall wilderness management objectives to carry out the recreational and other purposes of the Wilderness Act.” (DEIS at D-1) This is putting the cart before the horse, it is not acceptable, and it is not legal. (response # 196)*

**Response:** The concern about the Part I (needs assessment) selected quote is well-taken; the wording can be misinterpreted. The statement was intended to explain that the use levels of the different DEIS alternatives were designed and developed to be consistent and compatible with wilderness management objectives. This wording has been clarified in the FEIS needs assessment.

**Public Concern #33:** *The Needs Assessment evaluates commercial pack stock operations in isolation, without consideration of how their use allocation affects that of other legitimate commercial and noncommercial uses. This does not conform with existing Forest Service guidance. (response # 196)*

**Response:** The Needs Assessment does “conform with [sic] existing Forest Service guidance.” The Forest Service used the Outfitter-Guide Administration Guidebook (1997) as a resource in developing the 2001 Wilderness Plan and 2005 Needs Assessment. Other Federal agency “needs assessments” were also reviewed and considered. The Forest Service is unaware of any needs assessment that has been prepared for outfitting-guiding that is more comprehensive or thorough than the Needs Assessments for this planning effort. It has attempted to address the Ninth Circuit Court of Appeals opinion, agency policies and directives, and public comment. Wilderness capacity considerations, social and resource considerations, other user considerations, as well as preservation of the wilderness character considerations have been included and addressed in the FEIS and Needs Assessment.

**Public Concern #34:** *The statement that the 1985 limits were intended to reflect historic or then-current use levels is completely unsubstantiated and unsupportable. The truth is that no supporting documentation exists to show that the original (1985) service day allocations for eastside packers were related in any way to historical or then-current use. In fact, actual use never reached the levels allocated in 1985, and the 2001 Wilderness Plan reduced the allocations somewhat to rein in the inflated allocations. The available evidence shows that the 1985 allocations had no basis in historical use, but rather were substantially inflated from the*

*beginning, did not actually cap use, and allowed for substantial growth in commercial pack stock enterprises all throughout the 1980s and 1990s. (response # 196)*

**Response:** Commercial pack stock use and impacts have been thoroughly considered and evaluated in setting use and stock controls and restrictions in the FEIS. Commercial pack stations are allowed to provide public access to only nine percent of the total area of these wildernesses. They serve six to eight percent of the total current wilderness users. As documented in the FEIS and Needs Assessment, commercial pack stock use has not increased as claimed by some since the 1964 Wilderness Act. The use of percentages from the 1970s to the present is misleading. In fact, the total number of commercial clients is 22 percent less in recent years than 1970s (refer to the response to Public Concern #29.) Hence, the claim that, "...and allowed for substantial growth in commercial pack stock enterprises all throughout the 1980s and 1990s" is not supported by the documented client served records. The balance between commercial served and non-commercial served visitors is a reasonable and proper split according to the FEIS Record of Decision.

The focus of the three year data collection effort and preparation of the DEIS and FEIS was to consider and evaluate the impacts of the commercial pack stock operations in these two wildernesses. This analysis was done by considering past, present, and foreseeable future uses, actions, and activities of all users, not just commercial pack stations.

**Public Concern #35:** *Improper interpretation of data is prevalent in the Needs Assessment including: (1) the evaluation of historical trends in commercial horsepacking use in the planning area (in contrast to the unsupportable conclusions presented in the Needs Assessment, the Livermore and London studies actually indicate that current stock allocations in the John Muir and Ansel Adams Wilde); (2) the interpretation of Congressional intent related to the Wilderness Act; (3) the interpretation of work by Dr. Hendee and (4) data associated with the need categories. (response # 196)*

**Response:** The Needs Assessment (D-12) reference citing the Eastern Sierra Packers Association (2000) of evidence in the congressional record has been eliminated. Only congressional records themselves are cited in the FEIS.

The comment regarding the DEIS use of Hendee et al (D-12) appears to have misunderstood the intent of the citation. The needs assessment stated, "...it is generally supported in the wilderness management field; the conditions found in these areas when they were established as wilderness define the benchmark for uses and naturalness to be sought by management". Attachment I (Background) to the Needs Assessment in the DEIS contained a summary of some of Wilderness Management wilderness concepts and principles (D-48). The fifth selective citations was, "To a degree, under the non-degradation principle, the conditions prevailing in each area when it is classified established the benchmark of naturalness to be sought by management—unless conditions are deemed below standard and the objective is to restore naturalness." (Hendee et. al 1990 p. 145).

The Forest Service disagrees with the statements and conclusions of the commenter about how service days were established for commercial pack stations. And, as addressed in the response to Public Concern #28, the contention that the service days were substantially inflated and did not cap use, and actually allowed for substantial growth all through the 1980s and 1990s is not based in fact or evidence. The number of clients served today by commercial pack stations is 22 percent less than 1970s, that is the bottom-line and the evidence needed to substantiate the Forest

Service's conclusion that their use has been at least capped if not decreased. However, as acknowledged in Chapter 3 of FEIS, service days have serious limitations and value in accurately measuring and comparing use over time. Comparisons of "visitors" or "clients" served have significantly more validity than service days.

Additional clarification has been added to the comparison of number of pack stations and stock numbers over time. There is evidence to support the Forest Service conclusion that the number of pack stations and stock used within these wildernesses has declined over time, and more importantly that the clients served since 1970s to present has decrease by 22 percent. The comparison was merely attempting to show the historical trend in reduced pack stations, stock numbers, and clients served.

As stated in the response to Public Concern #29, additional data was collected and analyzed during the 2005 operating season to better document the public "need" and "extent" to which commercial pack stock services are necessary. The results and further analysis have been incorporated into the FEIS Needs assessment. The methodology for collecting the data and limitations of the results are fully disclosed.

**Public Concern #36:** *The DEIS does not analyze whether the number of commercial horsepacking operators (i.e., permits) is appropriate to the level of need. The Ninth Circuit made clear in their ruling that analysis of the number of permits granted by the Forest Service would be necessary, "...the Forest Service must show that the number of permits granted was no more than was necessary to achieve the goals of the Act." (response # 196)*

**Response:** The FEIS Needs Assessment discusses this issue in more detail. To a large degree, "the number of commercial horsepacking operators (i.e., permits)" is irrelevant when determining the necessary level of public need for wilderness horsepacking services. If, for example, one operator was granted a permit for a level of use that far exceeds the public's need, the intent of the Wilderness Act is not being met. Likewise, if fifty commercial operators were granted permits to operate in the wilderness, and the level of use authorized was less than what the public needed, again the intent of the Wilderness Act is not met. It is not the quantity of commercial operators that is important, but rather it is the level of use authorized to the commercial operators that must be examined.

To determine the extent necessary, the Needs Assessment looks at the current level of use and determines whether this level is appropriate and needed to meet the public's need for commercial horsepacking services. The Needs Assessment also considers other factors, including demographic trends, and arrives at a level of need for this service that is a range.

**Public Concern #37:** *The Forest Service should not consider eliminating or reducing commercial horsepacking services as the Needs Assessment clearly describes a need for commercial outfitting services. (response # 198)*

**Response:** The comment supports the conclusion of the Needs Assessment that commercial pack stock services are necessary in these two wildernesses. All of the action alternatives propose that commercial pack stock services will be authorized at levels and locations needed by the public but with conditions deemed necessary to protect the wilderness character. Only Alternative 5 proposes to eliminate commercial pack stock services. This alternative was included so that a full range of alternatives were analyzed and considered in this EIS. The Inyo and Sierra NFs agree that given the public need for commercial pack stock services and the EIS



analysis demonstrating that the wilderness is protected with the different control mechanisms and restrictions, there is no justification for “removing” pack stations.

**Public Concern #38:** *The Needs Assessment underestimates the true need or demand for commercial packing services in the wilderness. (response # 279, 348, 357)*

**Public Concern #39:** *The Forest Service should not decide who may or may not need the services of commercial pack operators. Rather, if a person desires the services of a commercial packer to access the wilderness, that should be sufficient evidence of the need for the service. (response # 279)*

**Public Concern #40:** *The need for commercial pack stock in the wilderness is driven by the demand by services from the public. This EIS fails to assess what is the desire of the public for service? What type of service does the public want? This draft plan and needs assessment fits the desire of a few special interest groups and ignores what is in the best interests of the public. (response # 275)*

**Response to Public Concerns #38-40:** The requirement to complete an amended Needs Assessment resulted from a U.S. Court of Appeals for the Ninth Circuit opinion filed August 25, 2004 and amended December 1, 2004, that concluded, “The finding of necessity required by the Act is a specialized one. The Forest Service may authorize commercial services only ‘to the extent necessary.’” That court further clarified, “Nowhere in the Wilderness Plan of the 2001 Needs Assessment does the Forest Service articulate why the extent of such packstock services authorized by the permits is ‘necessary.’”

It was not possible between December 2004 and February 2005 to collect data to fully answer this required finding in time for the release of the DEIS; however, data was collected during the 2005 pack station operating season and is incorporated in the FEIS Needs assessment. The appeal court clarified there is a clear distinction between “need” and “demand.” Demand is not a legitimate basis for authorizing commercial services in wilderness; instead, it must be based upon legitimate “need” for realizing proper wilderness purposes. The latter is what the Forest Service attempted to do in the amended Needs Assessment for the FEIS.

## Methodology/Use of Science

### Incorrect Assumptions

**Public Concern #41:** *The DEIS contains a number of false assumptions:*

1. *The public wants more dunnage trips and spot trips.*
2. *Wilderness can tolerate a lot more people either by spot trips, dunnage trips or day use.*
3. *Llama use is compatible with wilderness and is ok*
4. *Wilderness managers should impose their personal views over the direction of the Wilderness Act.*
5. *Giving operating areas to individual packers is in the public interest.*
6. *The Forest Service implies their economic analysis is ok. The Forest Service fails to look at net income and the ability of pack stations to stay in business.*
7. *More people and heavier concentrations of people in the wilderness is consistent with the Wilderness Act.*
8. *Designated campsites are consistent with the Wilderness Act*
9. *Eliminating free grazing is consistent with the wilderness Act.*



10. The rights of those people who are on a spot trip or dunnage trip should have greater importance than those that travel through the wilderness on outfitted trips. (response # 275)

**Response:** This list of disagreement with the DEIS are not “assumptions” but rather are issues and effects discussed in the NEPA in the DEIS and FEIS. The effects of spot and dunnage trips versus full service all expense and traveling trips; the capacity of the physical and biological resources for the various types of trips; the use of llamas; operating areas; designated campsites; grazing methods; are all relevant issues discussed in detail in Chapter 4 of the DEIS and FEIS.

Wilderness managers input and participation in the process reflect professional views based on agency policies, research findings education and experience. It is possible that other hold different opinions on issues.

**Public Concern #42:** *The document is clearly biased against commercial pack operations by not accounting for non-commercial pack stock (e.g., hiker) degradation in the wilderness. Commercial packers are unfairly blamed for all the damage in the wilderness (response #103, 168, 198, 275, 311, 348, 355, 357, 401, 428)*

**Response:** The analysis cites research published on relative impacts of stock and hikers along with the interdisciplinary team’s own findings. The team did find impacts that were associated with commercial stock use, though it is not the intent to determine cause, but rather determine an approach to managing the use. The focus of the analysis is commercial pack stock, as ordered by the District Court. The analysis intentionally narrows the focus and should not be construed as bias, as much as to respond to the court order.

**Public Concern #43:** *The document is clearly biased in favor of commercial pack operations and relies too heavily on unconfirmed data and anecdotal observations provided by commercial enterprises. (response #105, 196)*

**Response:** See response to Public Concern #42. A number of comments were received that asserted that the document was favoring pack stock interests; an equal number were received that stated that the document was bias against commercial packing activities. That these comments came from both sides of the issue probably indicates that the document is a fairly objective analysis of the effects of commercial packing on wilderness resources.

In terms of packer-supplied data and anecdotal observations, the FEIS attempts to independently verify any data or observations used in the analysis. This, however, is not always possible. Often times, the commercial packers have the most accurate and comprehensive information for a particular topic. When this type of data or observation is used in the FEIS, the source is disclosed.

## **Cumulative Effects**

**Public Concern #44:** *The potential cumulative effects discussion includes a number of impacts that do not even exist in the field. Mixing science, fact, hypothetical scenarios with desired future conditions is based on subjective interpretations of the Wilderness Act. Only the known specific cumulative effects and impacts attributed by proof to commercial pack stations should be analyzed in this document. (response # 311)*

**Response:** It is not clear from the comment what effects are discussed “that do even exist in the field.” NEPA requires a cumulative effects discussion in the EIS. By definition, a cumulative effect is the impact on the environment which results from the incremental impacts of the action

when added to past, present and reasonably foreseeable future actions (CEQ 1508.7). The analysis in the FEIS considers whether there are any cumulative effects associated with the proposed project when combined with relevant past, present, and reasonably foreseeable actions in the project area.

**Public Concern #45:** *Since the USFS does not currently document or consider the cumulative impacts of clearcut logging on public lands, which is obviously much more devastating to forests, wildlife, water resources and our quality of life, the USFS should not be able to require a Cumulative Effects Analysis EIS for other groups that impact public lands. (response # 72)*

**Response:** Under NEPA, a cumulative effects analysis is required for any federal action, including any analysis of timber sales.

**Public Concern #46:** *The catalog on page IV-4 does not include historic or present grazing by commercial pack stock. There are no records included for private or administrative use. (response # 311)*

**Response:** The effects of historic or current commercial pack stock grazing is disclosed in the direct and indirect effects discussions in the FEIS.

**Public Concern #47:** *Unfortunately, this EIS does a poor job of looking at the cumulative effects of pack stock in areas where packers overlap services. Instead, the Forest Service proposes to eliminate multiple packers using the same area and give exclusive rights to certain packers. (response # 275)*

**Response:** One action that is proposed in two of the alternatives is “primary operating areas.” This concept does not give exclusive rights to certain packers. In fact it allows for a number of areas of overlap where that overlap has occurred in the past and there are no resource concerns that need to be addressed. Measures have been proposed (and primary operating areas is one of them) to reduce or eliminate impacts where overlap of operators occurs and there are documented resource concerns. Chapter 4 – Wilderness describes the effects of overlapping operations. More specifically, a number of sections discuss the Silver Divide area and describes the effects of overlapping operations.

### Other Methodology Issues

**Public Concern #48:** *The methodologies section of the DEIS is seriously flawed because it takes the liberty to determine the amount of impact that is acceptable: “The intensity of the impact considers whether the impact to wilderness character would be negligible, minor, moderate, or major.” There is no reference to the condition that existed when the areas were designated. The effect of this inappropriate methodology is evident in statements found throughout the DEIS, for example, “the higher development trails have characteristics and management intrusions which adversely affects visitors’ experience of wilderness.” (response # 276, 278)*

**Response:** There are references to the condition that existed when the area was designated wilderness in the Chapter 3 Wilderness section. Unfortunately there is a lack of data on the conditions, and very little other than anecdotal evidence of conditions.

The subjective statements on wilderness character are consistently used in order to provide some response to accusations that the proposed uses are violating the Wilderness Act and having an impact on wilderness character. A full description of the methodology of using wilderness

character can be found at the beginning of Chapter 4 – Wilderness, and may help put these statements in context.

**Public Concern #49:** *Why are some resources in Chapter 4 described at the wilderness scale (trails, social, economics, and heritage) while others are given a more thorough examination at the geographic scale. Some of these resources may have important implications for a pack station but are only given a quick review at the wilderness scale. (response # 311)*

**Response:** Chapter 4, page 1 of the DEIS explains that some resources are only described at the wilderness scale as this is the relevant scale to analyze the effects on those resources”.

**Public Concern #50:** *The Forest Service fails to look at the historical baseline. We again ask that the Forest Service include data and assess the environmental condition at beginning of the 1979 John Muir Wilderness Management Plan and compare it to the conditions of the late 1990's. (response # 275)*

**Response:** Additional data has been brought into the analysis to try and display use levels at different points in time. However as mentioned a number of times, the quality of data is very poor prior to 2001. Data is incomplete across the planning area in 1979.

**Public Concern #51:** *The EIS is good in that it tries to show the various impacts and use patterns throughout the wilderness. For a quick study.....it should be a considered a good start. A major deficiency is not putting down on paper those areas that have received great use and show little impact. The EIS should do a better job of showing areas where there is a lot of use but the impact is not very high. (response # 275)*

**Response:** Comment noted. There are a few locations, such as North Fork of Big Pine, that receive very high level of use and resource impacts are considered low-to-moderate. Areas such as these are noted where they exist and are mostly the result of on-going management or the durability and resilience of the particular ecotype (i.e. granite).

**Public Concern #52:** *The differences in type and magnitude of impacts caused by recreation pack stock compared to other uses must be fairly and equitably analyzed in the DEIS. The Forest Service should acknowledge the disproportionate amount of resource impacts caused by stock-supported visitors, compared to non-stock-supported visitors, and that from a resource carrying capacity perspective, use allocations for non-stock-supported visitors could be substantially increased if commercial pack-stock use were limited to the extent truly necessary. (response # 196)*

**Response:** A number of research papers have been cited throughout Chapter 3 and 4 that note the differential impacts associated with pack and riding stock. The planning team does acknowledge the disproportionate amount of resource impact that can occur with packstock. We cannot, however, look at a condition and definitively state that something has been caused by stock. Allocations to commercial uses will be made with many considerations given to the extent necessary of this use. Non stock-supported visitors can also be the source of impacts that affect the recreational carrying capacity, but this analysis is focused on the commercial stock portion of the allocation and insuring it meets the intent of the Wilderness Act's specialized requirement.

**Public Concern #53:** *While we are sure the DEIS represents a lot of hard work on the part of the USFS, we must question the intent of the authors and their proposed actions. The 1,000 page document is unwieldy and unclear in its format. It does not support any of the proposed alternatives nor does it include any clear scientific evidence that documents serious resource*



concerns. *If at all, it supports an increase in commercial pack stock use in certain areas.* (response # 279)

**Response:** To aid readability, the Final EIS has reorganized and clarified some of the analysis. Although some readers may read that there is a need for more commercial pack stock, it is the decision makers that will take the information provided and make a determination as to the extent of commercial pack stock that is necessary given this document's analysis of the factors.

**Public Concern #54:** *It appears as if Data significance changed - ie. data collection taken earlier in the study vs. later. If the ID team did not have objective data interpretation from start to finish, then there are some highly questionable outcomes. (For instance Lee and Cecil lakes areas seen the first year of data collection) (Chap. III - 1, Data Collection and Analysis Process).* (response # 355)

**Response:** It is true that the first year of data collection was prior to the court order. Data collection methods changed and were improved over the course of the four years of data collection. However, data interpretation and consistency reviews of data took place after each field season, with particular attention to the first year of data. The above mentioned Lee and Cecil Trail had additional visits over the course of the data collection and both still and video photos were taken that were used throughout the alternative formulation and effects analysis. There no indication that new information collected would change the outcome of this highly impacted trail.

**Public Concern #55:** *The DEIS did not use objective standards to determine wilderness character as defined by Congress in Wilderness legislation. (Re: Chapter 3, Affected Environment, Data Collection and Analysis Process)* (response # 355)

**Response:** The effects analysis used four elements of wilderness character (see response to Public Concern # 16) that come directly from the Wilderness Act. This approach is supported by a technical report (Landres et al. 2005) as an objective approach to what could be considered the very intangible goals of the Wilderness Act. Chapter 3 includes the same elements of discussion of wilderness character in the context of the existing condition.

**Public Concern #56:** *At IV-140, the DEIS states, "The Science Review acknowledges that the available literature is replete with statements about the probable effects of grazing, many of them observational or anecdotal, but rarely is there controlled studies from which to accurately assess different levels of grazing. Most studies refer to heavy grazing without actual forage use quantification by cattle or sheep, and do not examine moderate grazing intensities that are proposed in this EIS." Again, pack stock users have modified their methods to protect grazing areas, which are important to their livelihood, and again there is less stock grazing now than in years past. Additionally, horses and mules graze differently than cattle and sheep since they do not pull out the grasses by the roots and they favor the tops of the grasses. Further, the meadow monitoring methods used by the Forest Service are quasi-scientific and as such are subjective and can, and indeed are (as admitted to me by a Forest Service employee) slanted to fit the anti-pack stock bias of the person doing the monitoring.* (response # 348)

**Response:** The referenced quotation in IV-140 of the Science Review that was part of the Sierra Nevada Ecosystem Project was meant to demonstrate the difficulties in assessing impacts of all classes of livestock grazing impacts on wildlife populations and habitat across the Sierra Nevada. The quotation is not applicable for all aspects of grazing impacts on resources that were analyzed



in the DEIS (e.g., range condition and trend, suitability, range readiness, and proper functioning hydrologic condition). These management factors were used in many cases to develop grazing recommendations.

**Public Concern #57:** *The Forest Service should reduce user conflicts between hikers and stock users by giving notice where stock are likely to be. The agency estimates that pack stock utilize 9% of the land. Surely those on foot can find somewhere to travel in the remaining 91%. User conflicts can also be reduced by educating members of all user groups regarding the historic values, public service values and mutual responsibilities of all who seek to experience the wilderness. (response #277, 362)*

**Response:** Improving information to help with visitor expectations is an excellent approach, and one tool which the agency has and will continue to use. Such a tool is not subject to NEPA compliance and can be applied regardless of the alternative that is selected.

**Public Concern #58:** *Positive impacts of pack stations and pack stock are not mentioned or collected as part of this analysis. (response # 311)*

**Response:** Chapter 3 describes the existing condition of the resource with specific mentions of areas where pack stock operate that have low or no impact. This information was then used in assessing the effects of alternatives in Chapter 4. The environmental document discusses many locations where continued use would have minor or negligible effects.

**Public Concern #59:** *The Forest Service should clearly explain the source of the direction for many of the management actions they are proposing. Is it direction from the 2001 John Muir Wilderness Management Plan and Record of Decision? Or, is it from standards from the Sierra Nevada Framework? Or, is it a new direction that is included in this set of decisions to be made. There is little effort by the writers of the plan to disclose why they are making choices. It appears that the EIS studies past actions and assesses future actions as a result of:*

1. *Sierra Nevada Framework*
2. *Record of Decision of the John Muir Wilderness Management Plan*
3. *Permit Renewal Process for the various pack stations.*
4. *Court imposed sanctions on the Forest Service to correct NEPA and Wilderness Act Violations for current and past actions.*
5. *Settlement and lawsuits from the HS Packers Association*
6. *Personal vision of a few Inyo National Forest employees who want "their goals" imposed on the public. (response # 275)*

**Response:** There are many sources of the direction contained in Chapter 2, including the 2001 Wilderness Plan, Sierra Nevada Framework, and the court-ordered analysis of commercial pack stock in the wilderness. The direction also comes from the conditions found on-the-ground during the years of data collection.

Personal goals of Forest Service staff have no bearing on the ultimate decision to be made by the Forest Supervisors, nor the formulation of alternatives. Alternatives come from public issues raised during the scoping period. These issues must meet the stated purpose and need of the analysis as identified in Chapter 1.

**Public Concern #60:** *The Forest Service is eliminating the rights of the public to use less traveled areas because a particular official says it isn't ok. Not because of a resource*

concern...primarily because it wasn't used between the time studied by the Forest Service. This is wrong and goes way beyond the authority of the Forest Service. (response # 275)

**Response:** Determinations of trail suitability took into consideration of management objectives, resource concerns, and use allocations (see Purpose and Need, Chapter 1). Pack stations had the opportunity to provide historical information on trails they have used (and most utilized this opportunity). All of these factors were considered within the above criteria to make a determination, and was not solely based on how much the trail has been used in the past few years.

## Use Data

**Public Concern #61::** *The Forest Service provides no credible data or analysis in the DEIS to support its conclusion that actual commercial pack stock use after the injunction has been significantly lower than actual use that occurred prior to the injunction. In addition, the historical use data is not reliable, because the commercial packstations self-reported their service days using tally sheets, and issued all wilderness permits to their clients during that period. We also believe that the revenue of the commercial outfits has increased in the period after the injunction, further indicating that the restrictions imposed by the district court did not negatively impact their operations and that no significant reduction in actual use has been achieved. When comparing gross revenue for the years 2000-2001 (prior to the injunction) to 2002-2003 (after the injunction), gross revenue increased an average of 17 percent. (response # 196)*

**Response:** There is no evidence that pack stations regularly inflate their use numbers. Further, there is no evidence that data prior to 2002 is invalid. Existing data shows that use has decreased since the court-ordered injunction. Chapter 3 shows number of people serviced, not service days, to show that this very basic measure of use clearly is declining. Using gross revenues to draw conclusions on use is illogical. As discussed in the DEIS, the prices of trips have increased over the last few years. This alone could account for the increased gross revenue figures. It appears as though additional regulations have increased the cost of doing business. Over the last four years, commercial packers have increased the price of their services and experienced increased gross revenue although use has decreased.

**Public Concern #62:** *The 2001 Wilderness Plan allocations do not accurately represent average historical use. The pre-2001 service day allocations, first established in the mid-1980s, were never based on actual use levels. They were illegally established without public involvement or proper NEPA analysis, and they were arbitrarily established at highly inflated levels (i.e., to allow substantial growth in commercial pack stock enterprises). The 2001 Wilderness Plan service day allocations simply reduced those inflated allocations, for the first time, to reflect the high end of then-current use levels. And the 2001 Wilderness Plan then allowed for significant growth above the then-current levels. (response # 196)*

**Response:** No data supports this theory. All existing use data shows a very definitive decline in commercial pack stock use in the past twenty years.

**Public Concern #63:** *The 20% reduction in allocated service days to commercial pack stations has not resulted in a 20% reduction in use, as intended by the District Court. The Forest Service has provided no credible evidence to demonstrate that the 20% service day reduction ordered by*

*the District Court in 2002 has had any significant effect on actual commercial pack stock use levels.*

*On average, these packstations utilized only 74% of their reduced allocation in 2002, 2003, and 2004, and only three of the twelve packstations utilized over 90% of their allocation. In other words, these data indicate that the court-ordered reduction in service days did not limit use for the vast majority of these packstations, because the actual use levels did not even approach the service day levels ordered by the court. The most likely explanation is that the self-reported use figures (upon which the 2001 service day allocations were based) were inflated, and that the current use under the injunction is not significantly different from past actual use levels. (response # 196)*

**Response:** Considerably more work was done in the Final EIS in analyzing data to assess trends. The Wilderness section in Chapter 3 was revised to provide a clearer picture of the data available to substantiate the trends. We do not believe service days to be a very accurate measure of trends. Number of clients served has gone down over the past 5 years and total. That is an indicator of commercial use levels actually declining.

A full discussion of types of data and interpretations of data can be found in Chapter 3. They do not support the theory that commercial use is increasing.

**Public Concern #64:** *The DEIS fails to analyze and disclose the fact that commercial pack stock use has never been meaningfully capped. Until the 2001 Wilderness Plan was adopted, 29,623 service days were allocated to commercial horsepacking stations in the planning area (DEIS at D-26). According to the 2001 FEIS Needs Assessment (at D-9): "Little documentation exists on how these allocations were determined or originated. However all indications show that historic use levels were intended to be authorized." It was this inflated allocation that the 2001 Wilderness Plan sought to address, reducing the total service day allocation to 21,900 (DEIS at D-26), not including the 20% injunctive relief reduction. However, by allocating service days based on the two highest-use years of the previous five, this did not amount to a meaningful cap, especially since the Plan provided for a pool of 3,000 additional service days. As demonstrated above, the commercial packstations have been using only 74% of their allocated service days during the past three years, even with the 20% reduction and without the discretionary pool of service days. The fact is that commercial pack station clients are almost never turned away because of these restrictions, while the non-outfitted public is turned away in droves. (response # 196)*

**Response:** The environmental analysis is conducted to determine the effects of pack stock and to arrive at a level of use that is compatible and consistent with the purpose and goals of the Wilderness Act. It is not a stated goal to "meaningfully cap" packers. It continues to be the agency's position that it is not only the amount of use that is meaningful to managing impacts, but the type and timing and management of the use. See response to Public Concern # 63 for discussion of the reliability of service days as an indicator of use levels.

**Public Concern #65:** *The DEIS uses methods and determines use numbers based on historic highs. In reality, the numbers that were used were taken from the past three years – years in which pack stations operated under a Court injunction and a new management plan which both served to reduce use anywhere from 20 to 50%. Historic Use should include at least 10 years pre-Court injunction. (response # form letter F)*



**Response:** Nowhere in the document does it state that use numbers were determined based on historic highs. Use numbers from the last five years have been used as a baseline because data prior to 2001 prior data is inconsistent, inaccurate and not complete. However, in preparing the Final EIS all available data dating back the last fifteen years was reviewed and brought into the analysis. The results of this are documented in project record.

### **Adequacy of Comment Period**

**Public Concern #66:** *The comment period for the DEIS should be extended. (response # form letter E, 196, 198, 275, 339, 364)*

**Response:** The Trail and Commercial Pack Stock Management DEIS is a long, complex document. The agency provided more than the minimum required comment period for a Draft EIS. Forest Service Handbook 1909.15, Chapter 20 requires a minimum of 45 days for comment on a Draft EIS. For this project, the Draft EIS was mailed out to the public on March 29, 2005. The document was also placed on the Inyo and Sierra National Forests' websites on this date. The comment period ended June 15, 2005. The comment period was open for nearly 80 days, more than a month longer than the minimum 45-day requirement.

### **Implementation and Monitoring**

**Public Concern #67:** *The DEIS does not consider the implementation of the proposed alternative. Analyses in the document assume that full compliance with the proposed actions will be achieved. Relevant issues and factors related to enforcing the proposed management actions are ignored. Clearly, the proposed management actions will not achieve the desired outcome unless compliance can be ensured. Thus, the Forest Service should develop management schemes that take into account the agency's ability to monitor and enforce compliance, and consider the historical degree of compliance with management decrees by the commercial outfits. (response # 196)*

**Response:** The Final EIS cannot assume non-compliance with proposed management direction. Nonetheless, given the concerns expressed over compliance and monitoring, the FEIS includes a very descriptive implementation plan (Appendix A) to guide the implementation of the selected alternative.

**Public Concern #68:** *Overall use needs monitoring to see how it is working and whether special problems develop. This is especially true for marginal meadows. The document does not contain adequate concern for continued monitoring. (response # 195)*

**Response:** See Response to Public Concern #67.

### **Funding**

**Public Concern #69:** *The forest service does not have the funds to micromanage designated destination camps and other aspects of the proposed project (response # form letter A, 35)*

**Response:** See Response to Public Concern # 67.

**Public Concern #70:** *The fees generated by a substantial increase in commercial pack stock activity would undoubtedly result in significantly greater income to the Inyo and Sierra National Forests. Given the greatly diminished receipts from timber sales over the last fourteen years, it is understandable that the agency is looking for ways to offset that loss of income. But that is not*



*an excuse to abandon environmental ethics or to ride roughshod over the sensibilities of the self-propelled hiker. (response #166)*

**Public Concern #71:** *The Forest Service's Preferred Alternative in the DEIS is a horrible example of the privatization and commercialization of wilderness. Do not give these outfitters a property right (through a 20-year permit) which permits them to commercialize and privatize wilderness. Retain the ability to regulate these non-conforming Wilderness uses and to limit them, when and as required. (response # 185)*

**Response to Public Concerns #70 & 71:** The proposed project does not represent an attempt by the agency to replace timber receipts nor does it privatize or commercialize the wilderness.

**Public Concern #72:** *Commercial pack stock enterprises should be required to post bonds to cover the costs to repair damage that they cause. The Forest Service has long known that commercial pack stock enterprises can and do cause substantial damage to natural resources in these wildernesses. The Forest Service's own files are replete with evidence of harm to the wilderness character that is caused by these businesses. The District Court found disturbing evidence of environmental degradation from stock usage in these wildernesses, and the appellate court upheld that finding. In response, all commercial pack stock enterprises permitted to operate in these wildernesses should be required to post bonds sufficient to cover costs to repair damage, as is required of miners who operate on public lands. This is not a new concept. (response # 196)*

**Response:** Currently under the "Guidebook on Outfitting and Guiding 1997" all O/G and Resort Permit pay a scheduled fee adjusted to the gross revenue reported at the end of the season to supplement the cost for use of the national forest land.

Chapter 4 includes environmental consequences and limitations associated with implementing each alternative. Where appropriate, the environmental document, discloses limitations and risks of inadequate funding, in particular when this funding is essential to effectively manage trails and commercial pack stations.

### **Adjacent National Parks**

**Public Concern #73:** *The Proposed Action would cause significant impacts in the surrounding national parks. The proposal would eliminate service days, and replace those limits with new limits on the number of trips that commercial pack stock outfits based on National Forest System lands may operate into the adjacent national parks (e.g., Sequoia, Kings Canyon, Yosemite). The service day limits currently act as a governor on the number of trips that Forest Service-permitted outfits may run in the national parks. We oppose the elimination of service days, and any action that may increase the impacts of commercial operations in the fragile high country of the Sierra Nevada national parks. At minimum, the EIS must carefully evaluate the impacts of increased use in the national parks due to the elimination of service days and/or the adoption of limits on number of trips. (response #form letter D, 196)*

*The Forest Service and National Park Service should, to the extent possible, manage wilderness uniformly. This includes evaluating the impacts of approving commercial trips that travel into the parks and coordinating grazing start dates with NPS administered parks. (response # 343).*

**Response:** The Inyo and Sierra National Forests have worked closely with the neighboring parks throughout this environmental analysis. Both Parks have responded to the Draft EIS and a close working relationship is in place to insure as much consistency as possible given the issues and

the situations. The Final EIS incorporates many of the requested restrictions on commercial pack stock operations as outlined by the Parks.

### **Yosemite National Park**

**Public Concern #74:** *If destination quotas and seasonal stock thresholds are used we would appreciate further discussion regarding the numbers provided for Yosemite access. Although excellent work was done to develop these proposals, there are some inconsistencies which may either be typos (for instance, no Yosemite trips are shown for Reds Meadow), or some numbers may be different than thresholds already established in the park for people and stock nights. Yosemite capped commercial stock use at its historic high in 2002, and will be continuing to monitor to assess proper levels of use. Some of the numbers given in the DEIS for quotas or thresholds are lower than use currently allowed in Yosemite. As an example, Yosemite Trails has an annual Yosemite stock use threshold of 457 animals, but the seasonal stock threshold in Alternative 3 is 245 animals. Their Yosemite use has been both higher (317 in 2003) and lower (191 animals in 2004) than the 245 animal threshold. We feel that because the pack stations need to travel through the Forests to access Yosemite, the park should honor the numbers given by the Forests if those numbers are based on research, best management practices, and/or ongoing monitoring. It will be important to review those numbers if this alternative is chosen. (response # 426)*

**Response:** Destination quotas for Yosemite National Park have been recommended in the preferred alternative in the FEIS that are reflective of the limits set in the Park. Thresholds already set by the National Park Service (NPS) and included in the Incidental Business Permits issued to the commercial pack stock operators by the NPS will be honored as appropriate use in the Park.

**Public Concern #75:** *We are uncomfortable with the standards given for trails entering Yosemite. Although we do not use the trail standards given in the document, the descriptions seem to imply a much more developed trail on passes leading into the Park. To be consistent with the level of development on the park side, each of those segments leading to the park boundary (Chiquito, Quartz Mt., Isberg, Fernandez, and Post Peak) would be more consistent if maintained to the level 2 standard rather than 3. Donahue Pass would be consistent at a level 3 rather than level 4. We felt the trail standards given were generally very ambitious. Additionally, it is highly unlikely we would allow sanding on any pass within the park, so would ask it not be allowed on the trails listed above to prevent hazardous conditions and resource damage from those accessing the Forest side earlier due to the sand. (response # 426)*

**Response:** In the FEIS, Alternative 2 – Modified proposes to manage Donahue Pass as Trail Class 3. For the remaining four passes that access Yosemite National Park (Chiquito/Quartz, Post Peak, Fernandez, and Isberg) we feel the proposed management classes in the Preferred Alternative of the FEIS are appropriate for the landscape, resource protection, and use. In particular field surveys indicate the Chiquito/Quartz, Fernandez and Post Peak trails appear to receive very similar management on each side of the boundary.

In Alternative – Modified, early season access over passes will be assessed by the proposed destination readiness criteria. One specific decision point in the process is consultation and concurrence with the National Park Service for trails that enter the Parks. The readiness criteria is designed to evaluate requests from the commercial pack stock operators based on the impacts created by altering natural snow pack conditions by shoveling, sanding or any other methods that

might be proposed. Annual approval is based on site-specific conditions on a case-by-case basis. This means that the National Park Service would be consulted each time a request is received, so that the specifics of that request would be considered.

## Sequoia and Kings Canyon National Park

### All comments are from response # 425

**Public Concern #76:** *Some specific aspects that we [Sequoia and Kings Canyon National Park] do not support are:*

- *The non-treatment of commercial stock use over Cottonwood Pass. With the controls proposed in all alternatives, we fully expect that commercial stock operators will at times seek other areas in which to operate. This will have an effect on SEKI, specifically in the area of Cottonwood Pass in the Golden Trout Wilderness.*

**Response:** Cottonwood Pass is subject to the subsequent analysis which includes the Golden Trout Wilderness.

- *The absence of analysis for commercial stock use over New Army Pass. Currently operators leaving the Horseshoe Meadow area prefer utilizing Cottonwood Pass, but if controls were put on Cottonwood Pass, some operators may seek to enter SEKI via New Army Pass. New Army and Cottonwood passes should be considered together to assure appropriate levels of use are determined. This is more of an issue if Alternative 3 is chosen which controls the area via a general trailhead quota, and less of an issue if Alternative 2 is chosen. It appears that if Alternative 2 is chosen, no commercial use would be permitted over New Army Pass as the destination is Cottonwood Basin. We would support only a very small amount of commercial use over New Army Pass.*

**Response:** The Final EIS includes specific discussion and direction for New Army Pass. This had been not specified as "New Army" in the Draft and is corrected in the Final.

- *The holding of exit quota spots, from Trail Crest east, for commercial operator clients as specified for Alternative 3. We feel that all visitors should compete equally for exit quota spots.*
- *Daily party sizes and yearly totals for these select passes:*
- *Taboose Pass in Alternative 3 – A single quota with 10 people/day and 50 stock/year allowed is proposed. We feel that the narrow and rocky condition of the trail, does not allow for safe passage of large stock groups and hikers and would encourage you to place a limit of 10 head/day on this trail. The annual limit as specified is acceptable.*
- *Shepherd Pass in Alternative 3– A single quota of 15 people/day and 100 stock/year allowed is proposed. We feel the narrow, rocky condition of the trail does not allow for safe passage of large stock groups and hikers, and that the fragile nature of the high country accessed does not support this level of stock well and would encourage you to place a limit of 10 head/day and a seasonal limit of 80 stock/year. The high meadow areas accessed by this trail have seen a notable increase in use in the past three years and they will not able to sustain this level of use.*
- *Shepherd Pass in Alternative 2 – A destination quota of 18 trips per season is allotted. Due to the reasons stated above, we would encourage you to set the quota at 10 trips in order to assure that meadows in the area do not become overused.*



*(NOTE: we feel the other quotas and use numbers as delineated in Alternatives 2 and 3 are acceptable at this time. We will continue to enforce our group size limits of 15 people and 20 stock as well as our monitoring efforts and may need to enact further control of use in these parks if impacts to resources and experiences so warrant.)*

**Response:** Further communications with Sequoia-Kings Canyon have taken place to resolve inconsistencies and address their concerns.

### **Devils Postpile National Monument**

**Public Concern #77:** *Some specific aspects that we [Sequoia and Kings Canyon National Park] do not support are:*

- *It does not appear that a thorough evaluation of the carrying capacity and impacts of the 1500 annual day use riders to Rainbow Falls has been conducted. The use of this area by commercial stock operators has been conducted via the NPS's Incidental Business Permit system. DEPO will be developing a General Management Plan in the upcoming years, and will address carrying capacity and resource impact issues in connection with this use. We are willing to accept the use numbers as allotted in the DEIS and Plan, but reserve the right to control and regulate use in DEPO pursuant to resource impacts determined through future monitoring and analysis.*
- *We also feel that trails which lead into DEPO, specifically those sections of trail number 2000.3 (Ref. #'s I-24 and I-25) should be classified no higher than Trail Class 3. These are classified as Trail Class 4 in Alternatives 1 and 2. These trails are in wilderness, and the higher level of trail class has conditions that we feel are not appropriate in wilderness. Trail Class 3 more accurately reflects the current condition and the maintenance level that we work to accomplish.*

**Response:** Proposed Day Ride allocation remains the same throughout the alternatives at 1500 (this includes rides at Agnew Meadow and on the River corridor). In the Final EIS, Alternative 2 – Modified designates Trails I-24 and I-25 as Trail Class 3.

### **Other Planning/Document Issues**

**Public Concern #78:** *The Forest Service should allow people to help on the ground with the repair, relocation, and realignment of campsites and trails. If improvements or mitigation efforts are needed, there are a lot of people, including commercial pack operators who want to be of service. (response # 277)*

**Response:** The Forest Service currently utilizes many volunteer groups and organizations, including the Pacific Crest Trail Association, Sierra Club, American Hiking Society, Friends of the Inyo, Students Conservation Association, and the Eastern Sierra Backcountry Horseman to assist with trail maintenance, camp site relocation, logging out, brushing and general maintenance at trailheads. Packers are also required to help “log out” and repair trails prior to entering the wilderness in the spring.

**Public Concern #79:** *The Forest Service should address the issue of uncontrolled dogs in these wilderness areas (response # 346, 347)*

**Response:** This topic is outside the stated Purpose and Need (Chapter 1) and scope of this project.



**Public Concern #80:** *Noncommercial recreational pack stock should also be removed from the wilderness. Private stock is essentially unregulated. Private stock users are often untrained and unprepared for the task of handling and caring for stock in the mountains.*

*Removing pack stock from the wilderness or reducing pack stock use might result in an increase in the number of backpackers. To realize the benefits of removing stock from the wilderness, measures must be taken to ensure that increases in other forms of recreational use does not result in increased negative impacts. (response # 392)*

**Response:** Analysis of non-commercial pack stock is outside the scope of this document. As stated in the Purpose and Need (pg. I-1) this analysis responds to two needs: 1) establishing additional management controls for commercial pack stock operations, and 2) a trail plan that accurately identifies a system of trails for all users and appropriate trail management objectives.

**Public Concern #81:** *The FEIS should include a glossary and acronym list that describes and explains specific terms such as trail class, recreation category, spot trips, dunning trips, full service trips, service days, grazing night allocations, and properly functioning conditions. (response # 427)*

**Response:** The FEIS includes a glossary of terms.

**Public Concern #82:** *The FEIS should provide a one to two page comparative chart highlighting the differences between the impacts of each alternative on key resources and management issues. Include a comparison of the temporal, spatial, and intensity of effect of each alternative. For example, while Alternative 4 may reduce the spatial effects of commercial pack stock use, it could increase the intensity of adverse effects by concentrating use into smaller high use destinations. The goal should be to highlight environmental and management tradeoffs between alternatives. (response # 427)*

**Response:** Unfortunately, given the nature and complexity of the project it is difficult to summarize the effects of the (now) six alternatives in one or two pages. Table 2.25 at the end of Chapter 2 summarizes the effects of the six alternatives on the relevant resources analyzed in the document.

## II. Alternatives

### Alternatives, Components

#### Quota, General

**Public Concern #83:** *Commercial pack stock management quotas should include caps on both the total number of stock animals and the number of customers served. (response # form letter C)*

**Response:** This concept was analyzed in Alternative 3. For each trailhead quotas there was identified seasonal thresholds on stock and clients.

**Public Concern #84:** *No rationale and/or methodology is explained or referred to for the calculation of use levels and stock numbers which vary greatly from Alternatives 1 through 4. (response # 248)*

**Response:** The methodology for calculation of use levels in each alternative exists in the project record. The FEIS includes additional summary language in each of the alternatives' "Quota" section to help readers understand the differences between the alternative use levels. Alternative approaches generally respond to issues, which is how the DEIS attempted to explain the differences between the alternatives.

**Public Concern #85:** *There should be only one packstock group allowed per trailhead per day, with a limit of four clients, and eight horses/mules. The group can be either a day trip or overnight trip, with a limit of five days. They must carry in all their feed. (response # 316)*

**Response:** The DEIS/FEIS analyze a range of alternatives that propose a variety of mechanisms to control commercial pack stock use. The consequences of each of these are disclosed in the Environmental Consequences. There does not appear to be any rationale for the limits suggested above. The Preferred Alternative (Alternative 2 – Modified) proposes a destination quota system that regulates use on a very site-specific basis, which provides more direct internal controls than a daily trailhead quota. In addition, there would be daily and seasonal limits on the number of stock that could be used. The approach for managing pack stock suggested above does not meet the purpose and need for the project.

**Public Concern #86:** *Given the unused quota space over the last several years, it is obvious that demand does not exist at a high level for some commercial pack services. Quotas should be lowered to levels much nearer present levels. (response # 399)*

**Response:** Information on quota space ('quota availability') has been added to Chapter 3, "Wilderness Resource." This shows that quotas are filling at a similar rate for commercial quotas as non-commercial quotas. Quotas are in place as an overall regulator of capacity for the general public, while the commercial operator's capacity is regulated with service days (currently) and quotas act as a temporal control to reduce spikes in use. The various alternatives provide a range of commercial use levels and mechanisms to limit use. Alternative 4 proposes lower quotas where resource concerns exist. It should be pointed out that demand and use changes over time and the agency's objective with commercial use levels is to provide the level of commercial use that is necessary to meet the goals of the Act and preserve wilderness character. It is not the

objective (see Purpose and Need, Chapter 1) to reduce use to current need levels unless there is a resource need.

**Public Concern #87:** *Alternative 3 allows an option for “adjusting” allowed use downward if use is “low”. This is not reasonable - it is an outfitter/guide policy and should not be applied to Pack Stations. It does not account for economic trends, weather conditions or any myriad of factors. (response # 38, 355)*

**Response:** Alternative 3 does not have any direction to reduce stock and client thresholds simply because use is low or below the established thresholds. Any adjustments to the thresholds are based on an assessment by the Responsible Official regarding the condition of the resource conditions. “If any evaluation indicates that conditions do not meet standards and guidelines or desired conditions corrective actions including reduced thresholds, additional destination quotas and/or campsite or other site specific closures will be considered.” (DEIS pp. II-42)

**Public Concern #88:** *The Forest Service should not allow for the adjustment of quotas as is suggested on page 11-18 of the DEIS. There should be defined, effective limits on the seasonal and daily number of persons and stock animals, and effective controls (i.e., either daily trailhead quotas or daily destination quotas) to prevent spikes in use. (response # Form Letter C, 36, form letter B, 65, 196)*

**Response:** The analysis of this management direction is found in Chapter 4. The Final EIS improves this language to make it clear that proposed use levels are intended to be an estimate to reach certain conditions. Our emphasis is on the conditions, not the tool (quota) or mechanism.

**Public Concern #89:** *Pack Stations that merely pass through the John Muir and Ansel Adams Wilderness Areas without staying overnight or without dropping a party off as a spot camp should not have their use categorized as “overnight” as there is no overnight use taking place. No campsites are being used, no stock grazing or holding areas, and no firewood being used. It is merely day use of trails. (response # 428)*

**Response:** The classification of use as “overnight” was used when the allocation system is based on service days, as prescribed by the 2001 Wilderness Plan (ROD pg. 12) and the No Action, Alternatives 1 and 4 in the DEIS. With service days a certain number were allocated to “overnight” use as well as a specific number to day rides. However the Alternative 2 – Modified in the FEIS and Alternative 2 and 3 does not use service days as a use allocation method, so the classification no longer applies in these alternatives. The Selected Alternative implements a system of destination quotas. For trips passing through the John Muir and Ansel Adams into the National Parks, the number of trips, or other appropriate mechanism, will be set by the National Park Service. While it may be true that there are few impacts on the John Muir and Ansel Adams Wildernesses the impact will occur where the party does camp and the FEIS incorporates the appropriate direction in cooperation with the National Park Service to meet the objectives of both agencies.

### **Quota, Trailhead Quotas**

**Public Concern #90:** *A separate quota should be established for each trailhead in the vicinity of any pack station that is specifically for commercial pack stations. For trailheads not frequently served by the pack stations, there should be another quota for all commercial users. (response # 428)*



**Response:** This approach is used in Alternative 3 (Chapter 2) and analyzed in Chapter 4.

**Public Concern #91:** *Non-commercial user quotas should be 95% reserveable and placed on the National Recreation Reservation System. First come, first served quotas are not fair to visitors from out-of-town. (response # 428)*

**Response:** Reservable quota and the National Recreation Reservation Contract are both outside the scope of NEPA and the Purpose and Need (Chapter 1).

**Public Concern #92:** *Trail Crest should not be considered an entry trailhead. Controls should be instituted on the uncontrolled, unlimited, and unregulated day use that currently tops 300 persons a day on the Mt. Whitney Trail. (response # 428)*

**Response:** Use entering Trail Crest comes through Sequoia and Kings Canyon National Park. The Park and Forest Service have indicated concerns with this use and determined management of it is important. Alternatives in Chapter 2 address these concerns by providing alternative approaches to a Trail Crest quota. Current levels of day use on the trail are outside the scope of this project and are not analyzed in the environmental document.

**Public Concern #93:** *Daily trailheads quotas should be implemented:*

- *To prevent "spikes" in use and overcrowding of popular areas. (response #Form Letter D, 33)*
- *To prevent overcrowding and in order to be fair to other users who have to abide by these quotas (response # form letter C, form letter E, 35, form letter B, 318, 399)*

**Response:** The FEIS presents various alternatives for managing commercial pack stock use, including daily trailhead quotas. Alternatives 1, 3, and 4 continue to use a quota system while Alternative 2 and the Alternative 2 – Modified use a destination quota method in place of the daily trailhead quotas.

### **Quota, Destination Quotas**

**Public Concern #94:** *Some areas should be subject to destination quotas. Trailhead quotas will not be adequate to control use of some popular areas. The listed provision of trip limits for some areas is not sufficient protection. (response # 195, 277)*

**Response:** The effects of destination quotas and trailhead quotas are described and compared in Chapter 4 "Wilderness". Chapter 4 analyzes the environmental effects of different control mechanisms (including trailhead and destination quotas).

**Public Concern #95:** *The Forest Service should give careful consideration and attention to the concept of destination management. Destination management can become a management tool which would provide a single focal point into which the myriad forms of restrictions or management contained in the DEIS can be integrated into a streamlined, destination specific form of site-specific management. (response # 325)*

**Response:** The Final EIS analyzes the environmental effects of destination a destination management approach to managing commercial pack stock. The concept has been incorporated into the selected alternative and the implementation /monitoring plan. The Record of Decision provides the rationale for adopting this approach.



**Public Concern #96:** *Destination quotas (Alternative 2) may ultimately be an excellent way to manage commercial use because they may allow the agency to more specifically target the areas of concern. However, trailhead quotas provide the value of freedom of movement. The unconfined nature of the wilderness experience is something to strive for in management as long as the behavior of the user is such that the resource is protected. There will be effects to Yosemite with either management direction. Trailhead quotas are consistent and generally preferred within the Central Sierra Wilderness Group due to the inherent flexibility and existing system, but the destination quotas may be a new and effective tool we should consider particularly with respect to commercial operations. (response #426)*

**Response:** The DEIS analyses both approaches to managing commercial pack station use. Daily trailhead quotas are a component of Alternatives 1, 3, and 4 while destination quotas form the basis for Alternative 2 and Alternative 2 – Modified. Destination quotas for Yosemite National Park have been removed in the selected alternative in the FEIS. Thresholds already set by the National Park Service (NPS) and included in the Incidental Business Permits issued to the commercial pack stock operators by the NPS are sufficient and there is no need for the Forest Service to interpret or duplicate them.

**Public Concern #97:** *Destination Quota – there is no impact when a party comes out of the mountain. Numbers should not be counted for stock just dropping people in the mountains nor should they be counted when picking up a party. There is no impact from this. (response #38)*

**Response:** There are impacts to the environment each time a group travels in the wilderness. Impacts to the trails are described in the Environment Consequences (DEIS pg. IV-30). Impacts to the wilderness character (opportunities for solitude; naturalness; undisturbed; and primitive and unconfined recreation (DEIS pg. IV-6)), also occur whether a party is traveling in or out of the wilderness, or is dropped off.

**Public Concern #98:** *Destination quotas should only be used in areas with no trailhead quotas. They should not be used in conjunction with trailhead quotas. (response # 428)*

**Response:** In Alternative 2, destination quotas replace both daily trailhead quotas and service days (p. II-17) for commercial pack stock operators. Destination quotas are not used in conjunction with daily trailhead quotas for commercial pack stock operators. In Alternatives 1 and 4 there are no destination quotas. In Alternative 3, destination quotas are implemented on a few sites (27 total) to provide site-specific management controls where daily trailhead quotas will not meet the desired objectives (p. IV-22)

## **Quota, Thresholds**

**Public Concern #99:** *The proposed action relies heavily on thresholds. Implementation of the thresholds would require intensive efforts and a large investment of Forest Service staff time and resources at the end of each season. Any proposed reductions in thresholds would be vigorously contested by packers. Alternative 3 does not give any explanation on how thresholds have been determined. Thresholds would not be effective limits on use and should be abandoned. (response # 399)*

**Response:** Currently all pack stations are required under the annual operating plan to submit monthly, tally sheets of all use inside and outside the wilderness. The tally sheets record provide historical records to track use to monitor the threshold. Thresholds are another proposed tool to

monitor and control use in the wilderness. Alternative 2 – Modified (the Selected Alternative) does not include the threshold concept as outlined by Alternative 3.

**Public Concern #100:** *With regard to Seasonal thresholds - yearly assessments - this will be subjective and arbitrary. There are no guarantees that the public need will be met. It is also highly inefficient. (In Alt. 3 is borrowing still allowed?). The means for approving use is subjective. It would subject the clients of the Pack Station to the biases of various Forest personal, in the present or in the future. (response # 355)*

**Response:** These thresholds provide general guidance for total use in a season. Single quota trailheads will only have a seasonal stock threshold and will regulate number of clients through the daily trailhead quota (see DEIS, Chapter 2 C. Quota-trailhead Quotas). By utilizing the threshold, once packers meet their quotas, all trips will be discontinued. Packers will be responsible to monitor their operations and inform their clients of the possibility that they may not be able to complete their trip and another area will need to be selected.

**Public Concern #101:** *There should be no caps on the annual number of trips. There is no need to curtail trips in September or October, when use is generally far below the capacity of the area. (response # 428)*

**Response:** The packer will have the discretion to disperse trips throughout trailheads to prevent hitting the cap. Caps are also place in areas where evaluations have shown a need to control capacity to prevent resource damage and social impacts.

### **Primary Operating Areas**

**Public Concern #102:** *The Forest Service should not implement the Primary Operating Area concept. (response # 38, 355)*

**Response:** Primary Operating areas will be deferred and developed when the pack station permits are reissued under the SUP EIS document. In the FEIS, destination areas will be analyzed.

**Public Concern #103:** *There are two major problems associated with the concept of POAs [Primary Operating Areas]. The first is that there is a potential to dramatically change the basic capital value for individual pack stations whose value was previously established through the purchase of a volume of use days. A restriction to a primary operating area which is not consistent with this level of use would have the effect of diminishing the value of the business asset through administrative regulation.*

*The second problem relates to traveling trips. The MOU recognizes that there is a fundamental difference between traveling trips and spot and dunnage. A restrictive POA would compromise the viability of traveling trips or result in a significant concentration of use. As the DEIS indicates, traveling trips account for a smaller percentage of overall use than spot and dunnage trips. There are operators, including Frontier who have the ability and desire to offer this service to the public. Operators should have the flexibility to offer this service. We note that the discussion of POAs does not mention the use of such a management tool in connection with traveling trips and do not, therefore, believe that this is intended to apply to such trips. (response # 325)*

**Response:** Identifying POA's will not restrict the operators from offering traveling or all expense trips to their clients. POA's could increase the value of the business once the packer can

show an area as part of the permit. The level of use allocated will be consistent with the historically recorded use by each pack station and not reduce use.

Under the DEIS Alternatives 2, 3, 4, traveling trips will not exclude packers from traveling outside the POA and, therefore, would not compromise the viability of traveling trips. Primarily spot and dunnage trips are directly affected by the DEIS.

### Unassigned Trips

**Public Concern #104:** *We strongly oppose the proposal to allow five unassigned trips per year for each pack station (at II-17 & 18). These trips could occur essentially anywhere, at any time, presumably without specialist review, further NEPA analyses, or public involvement. The proposal would allow up to 100 commercial pack stock trips per season to areas in these wildernesses that have not been analyzed and probably will not be analyzed or monitored in any meaningful way. Because commercial packers often hire young, inexperienced guides, and because the commercial outfits have a clear track record of disregard for wilderness protection regulations, the unassigned trips are likely to have significant adverse effects on the wilderness character. (response # 196, form letter D)*

**Response:** Alternative 2 – Modified (Selected Alternative) responds to this concern by not permitting “unassigned” trips. Unassigned trips are analyzed in the FEIS in Chapter 4, Wilderness for Alternative 2. While the analysis does indicate the difficulty in predicting the exact effects of unassigned trips, it is not entirely fair to make the assumption that commercial outfits have disregard for wilderness protection regulations.

### Designated Stock Sites

**Public Concern #105:** *Loopholes render the proposed designation of stock camps ineffective. The DEIS proposes for Alternatives 2 and 3 that, (at p. II-33 and II-49), “All overnight holding of stock by commercial operators would only take place at a designated stock camp.” This key requirement would limit the magnitude and extent of stock impacts, and is long overdue. However, the proposal quickly adds loopholes that would render this direction essentially meaningless:*

*If a stock camp has not been identified, and an operator requests use of an area where overnight holding of stock is needed, the Authorized Officer may approve that use. If an operator plans to use sites repeatedly through the term of the permit, the site should be approved and designed in accordance with the guidelines above. (DEIS at II-33 & II-49)*

*Despite the clear initial language (i.e., All overnight holding of stock by commercial operators must take place at a designated stock camp) exceptions can be obtained for overnight holding of stock anywhere and anytime as long as the operator receives approval from the Forest Service. There is no requirement for specialist review, NEPA analysis, or opportunity for public involvement as new sites are created and used as stock camps. There are no limits on the number of exceptions that may be granted, and no objective criteria to limit where or when such exceptions may be granted. Also, the words needed, repeatedly and should are undefined, open to wide interpretation, and essentially have no regulatory meaning at all.*

*In order for this proposed action to be meaningful, the provisions for exceptions must be removed, to require (with no exceptions) that all overnight holding of stock must occur at locations that have been: (1) evaluated and cleared by resource specialists, and (2) designated as stock camps in a public NEPA process.*



*Five years is too long to install BMPs at designated stock camps. It has long been known that stock holding areas pose the potential to cause significant nonpoint source water pollution. The Forest Service's own Best Management Practices Evaluation Program has shown backcountry stock holding areas to have among the lowest implementation and effectiveness scores of any nonpoint source pollution category. The DEIS states (at II-33 & II-49) that under Alternatives 2 and 3 the Forest Service and/or permittees will prevent nonpoint source water pollution from stock camps by installing Best Management Practices (BMPs) within five years of permit issuance (the BMPs are to include designated stock holding areas, designated access into and out of the camp, and other erosion control measures as needed). The Forest Service cannot legally put these problems off for up to five years. The DEIS (at B-13 to 15; Table 5) indicates that approximately 40% of commercial horsepacking campsites evaluated by the Forest Service have "substances entering water." These evaluations were begun in 2002 or earlier and little has been done to remedy these situations. The Forest Service must move more expeditiously to prevent water pollution from stock holding areas. (response # 196, form letter D)*

**Response:** The Forest Service believes that placing the responsibility for approval of additionally requested stock camps with the Authorized Officer is appropriate. The Authorized Officer is bound by law, regulation, and policy to conduct an analysis appropriate to the magnitude of the request. The DEIS identifies the issue of allowing discretion for case-by-case decisions as non-significant (DEIS pg. I-10) since it is "conjectural and not supported by scientific or factual evidence." There is no evidence to suggest that future decisions would necessarily "lead to a deterioration of wilderness value and resources and an inconsistent approach to management overtime."

A five year target to implement BMPs at designated stock camps is appropriate. Table 5 (DEIS pg. B-13) does not differentiate proposed stock camps from campsites used for spot/dunnage, unknown uses or stock holding camps that are not proposed, so the percentage of proposed stock camps that have substances entering the water cannot be quoted from the data presented.

**Public Concern #106:** *Commercial packers should not be limited to designated sites*

- *Because according to the DEIS "impacts reach a peak with light to moderate use and beyond this point decreases significantly." (D-54) Much of any increased impact could be attributable to the increase in hiking activities, since pack stock use has actually decreased. Additionally, pack stock users have improved their methods for containing stock at camp sites, and have limited further deterioration of those sites. (D-55) By contrast, hikers will often seek new, untrammelled sites on the edges of established camp sites in which to camp. Thus, attributing campsite degradation to pack stock appears to be misdirected. (response # 357)*
- *Because this is restrictive, demonstrate micromanagement of the forest and do not allow the public to visit the areas they choose. Flexibility and the freedom to travel within the wilderness are important values to the public, and are referred to in the Congressional Record for the Wilderness Act as being necessary for a wilderness visit. (response #34, 40, form letter F, 154, 281)*
- *Because designated campsites are terrible for the public and not consistent with the Wilderness Act. And the closure of camping from Third Recess to Second Recess is even worse than having a few camps. The Forest Service proposes a few designated campsites for Rock Creek Pack Station and fails to tell the public what that impact will have when they go to take a pack trip. (response # 275)*



**Response:** At the conclusion of this planning effort, the packers will be limited to existing established sites to prevent additional resource damage to the wilderness. The sites selected are sites historically used by packers and new sites are generally not necessary. Commercial pack stock use has been on the decrease for the last five years. The existing sites will accommodate the demands by the pack station and still provide additional sites for other users without adding pressure on the existing wilderness. There are no restrictions for foot travel off trails to visits the area they chose.

**Public Concern #107:** *To reduce the potential for user conflicts, the Forest Service should ensure that designated sites are adequately signed. (response # 198, 362)*

**Response:** The National outfitting/guiding regulation permits the Forest Service and the packers to post signs at the designated sites to inform the public that the site is under a fee for use (also known as Assigned Sites O/G Handbook p. IV-20 item V). The packer would have the right to request the other user to move to another site. In addition, more than one site will be identified in a geographic location to minimize the conflict of multiple users.

**Public Concern #108:** *The DEIS states that the designated campsites by alternative are as follows: Alternative 2 - 94 sites, Alternative 3 - 101 sites, and Alternative 4 - 59 sites (p. IV-116). The FEIS should provide the justification and rationale for the number and location of designated sites for each alternative. (response # 427)*

**Response:** The FEIS contains a range of alternatives to meet the purpose and need for the project. Imbedded in each alternative are specific components, including designated campsites. The components included in each alternative are generally developed to be consistent with the intent of the individual alternative. The effects of all the alternatives are analyzed and disclosed in Chapter 4 of the EIS.

### **Campfires, Restrict/Prohibit**

**Public Concern #109:** *Commercial pack outfits should not be allowed to haul firewood into areas that are closed to campfires.*

- *Because this absurd proposal would constitute unfair favoritism to commercial businesses, it would result in increased impacts to trails and meadows (from the extra animals needed to haul firewood), it would invite abuses (i.e., packers would certainly use local firewood after their imported wood is gone, and other visitors would see the smoke/fires and think it's okay to build their own campfires). And, it would be impossible to enforce. (response #form letter C, form letter D, 33, 35, 36, form letter B, 65, 78, 97, 175, 209, 212, 230, 310, 318, 372, 390, 399, 406)*
- *Because this would set up a serious inequity perception, and confuse and compromise campfire regulations for other users. We are also concerned about the very disturbing potential of introducing pathogens and/or weed seeds by allowing wood to be imported. (response # 426)*
- *Because this practice would pose a myriad of problems and will not be allowed in SEKI. The practice takes significant risks with minimal rewards at best. By bringing in firewood, there is a risk of importing non-native, and potentially harmful, pathogens and materials, e.g. weed seeds. There is also a compliance issue in that coals/ashes may be dumped counter to instructions to remove these materials. We believe that ecological values should not be subservient to economic values. This practice would have other effects as well, including requiring additional stock to carry the wood/charcoal (which would increase impacts and costs to clients), the false*

impression that fires are allowed in what are supposed to be “closed” areas to other user groups, and the potential dissatisfaction of those other user groups who subject themselves to citations and may feel that a double-standard exists for the benefit of a commercial entity. On page D-37 of the DEIS, a US Forest Service policy states: “Where a choice must be made between wilderness values and visitor or any other activity, preserving the wilderness resource is the overriding value. Economy, convenience, commercial value, and comfort are not standards of management or use of wilderness.” We feel that the packing in of wood or charcoal is not in the best interest of preserving the wilderness resource and urge you to continue with the decision made in the 2001 Wilderness Management Plan to “Prohibit. . . . packed in firewood, or fire pans within areas closed to wood campfires.” (response # 425)

- The Forest Service should reconsider the decision providing an exemption for commercial pack stock operators to the elevation fire closure zone. The FEIS should describe the actual and perceived importance of campfires to clients’ experience of the wilderness. If exemptions to the elevation fire closure zone are provided, the FEIS should describe and commit to specific monitoring and mitigation measures to reduce potential adverse effects. (response # 427)

**All of these comments are from response #196**

- Because this apparent deference to political pressure by commercial outfits to weaken the campfire restrictions is inappropriate in light of the Ninth Circuit’s ruling in *High Sierra Hikers v. Blackwell*.
- Because the 2001 Wilderness Plan clearly stated the problems associated with allowing the packing in of charcoal or wood and to allow only gas stoves in the closed areas.
- Because the Forest Service should promote these wilderness areas for what they have to offer, not cater to incompatible desires and expectations of users.
- Because there is no valid reason to allow commercial outfits to have fires in areas that are closed to campfires.
- Because scientific research also clearly demonstrates that the Forest Service must ban campfires at high elevations in order to prevent significant adverse impacts to the environment.
- Because it would be nearly impossible to enforce a fire closure if commercial outfits were allowed to import firewood. In addition, campers who see the fires, smoke, and/or fire scars from imported wood or charcoal would be tempted to build their own fire, resulting in additional significant ongoing impacts.
- Because there is no evidence that the current campfire closure has caused lower elevation wood depletion.
- Because the full impact of allowing packers to bring in their own wood is not fully analyzed.

**Response:** The inability of the packers to provide a desired service (campfires) to their clients was identified as an issue, and the determination of appropriate campfire limitations is part of the purpose of this analysis. The issue of inequity for users is addressed in Alternative 2 – Modified which allows any wilderness user to pack in charcoal and a fire pan and requires that the ashes be packed out. The use of charcoal would also eliminate the concern about weed or pathogen introduction. The environmental effects of the campfire policy are fully disclosed in Chapter 4 of the Final EIS.

**Public Concern #110:** *The elevational campfire closures established by the 2001 Wilderness Plan (i.e., 10,000 feet in the north; 10,400 feet in the south) are too high, and must be re-analyzed in light of the Ninth Circuit's ruling. Specifically, the Forest Service must regulate wood-gathering and campfire building by the commercial pack stock industry to fully protect the wilderness character. The Forest Service cannot continue to allow impairment of the wilderness character because commercial outfits desire to build campfires in areas where campfires are inappropriate.*

*The inadequate campfire elevations established in the 2001 Wilderness Plan (i.e., 10,000 feet in the north; 10,400 feet in the south) were selected by the Forest Service based on political pressure exerted by the commercial pack stock businesses. (response #196)*

**Response:** A range of alternatives has been analyzed in regards to campfire building. We do not believe the 9<sup>th</sup> Circuit ruling can be interpreted to include lowering the elevational closure based on an allegation that the 2001 elevations were selected based on pressure from the commercial pack stock business. The elevations were based on the approximate elevations of white bark pine forests.

**Public Concern #111:** *The Forest Service should consider dropping the fire closure to 8000' to 9000'. (response # 230)*

**Public Concern #112:** *Campfires should not be allowed anywhere in the wilderness (response # 316)*

**Response:** Consideration of campfires in general is outside the scope of the FEIS. The decision related to campfires and campfire closures was made in the 2001 Wilderness Plan (ROD pg. 4).

## **Campfires, Allow**

**Public Concern #113:** *Campfires should be allowed above the current closure.*

**Comment:** *The firewood closure in areas where there is plenty of available and down firewood is wrong. A good alternative not discussed is to allow fires in those areas where the firewood is available. For example, the Tamarack/Dorothy Lake area has tremendous amounts of firewood available for campfires. However, the camping areas are between 10,000 and 10,400 ft. There should be alternatives that particular regions or lakes could have fires. The 10,000 ft fire closure for Tamarack and Mono Creek is inappropriate. This EIS should have shown the environmental consequences from the Fire Closure of 2002. Now camps are moving and there are all sorts of new impacts. (response # 275)*

**Comment:** *Campfires – All areas should be open to fire plans with charcoal. There are no other forests in the nation with this restrictive policy of no charcoal. In addition, there is no reason to not have a campfire as long as it is in a firepan, using packed in wood, and packing out the ash. It is all contained, everything is removed. This is highly desired by the public, and they should be allowed to have this option. (response #38)*

**Comment:** *There should be no elevational closures for campfires as this forces the public into concentrated areas leading to overuse and ultimately elimination of campsites. Mitigation measures can be used to allow contained campfires, including packing in wood, packing out ashes, and using fire pans. Campfires should be allowed in all areas with the mitigation measures in place where firewood is scarce. (response #34, 37, form letter F, 257)*



**Comment:** Campfires are an important traditional aspect of the wilderness experience as well as a health and safety matter in a high elevation where nights and even days can be very cold. Campfires are a historical practice since the dawn of mankind and were in common usage when the Wilderness Act was enacted. Campfires are part of the wilderness character. If the area does not have sufficient firewood available, the visitor must be allowed to bring in fuel from elsewhere if they so choose. The elevational fire closures forest wide make no sense. The tree line is different in various basins and there are many avalanche slides with a jungle of fallen dead trees that can't be utilized and pose a fire danger, because of a no campfire regulation. Pack station customers have been shown to be in compliance with this regulation but backpackers are more difficult to regulate, and the majority are unaware of the regulations as evidenced by illegal campfire rings. (response # 198)

**Comment:** We believe that all wilderness users, regardless of their method of transportation should be able to enjoy the experience of a campfire if they are willing to pack in a fire pan and remove the resultant ashes. We strongly believe that management policies should not create categories or tiers of rights among wilderness users. Such disparities generate misunderstanding about what people can do and conflict between people who are subjected to different rules at the same location. We would propose that the campfire rules from the 2005 MOU be adopted. (response # 325).

**Response:** The concerns of inequity for users, use of charcoal, and areas above the closure with adequate firewood are responded to in Alternative 2 – Modified. This alternative allows any wilderness user to pack in charcoal and a fire pan and requires that the ashes be packed out, and modifies the elevational boundary where adequate firewood is available. It also allows for some case by case exceptions for packers upon request, with established criteria for the approval process. Monitoring controls and responses are identified.

## Group Size

### Public Concern #114: Group size should be lowered

- To no more than twelve animals should be allowed per group, maximum. (response #form letter D, 406)
- To ten animals per group, following the recommendations of the best available science. (response #form letter B, form letter C, form letter E, 35, 65)
- Because of the excessive manure, urine, and dusty conditions that large groups lead to. (response #30, form letter B, 78)
- Permanently to 12/20 limit on livestock party sizes to reduce environmental impact. (response # 175)
- To 15 animals. (response # 318)

### Public Concern #115: Group size should be increased

- To accommodate the additional needs of handicapped individuals. (response # 188)
- To accommodate larger groups such as girl scouts, boy scouts, YMCA's, church organizations, youth groups, and large family reunions. (response # 355)



**Response to Public Concerns 114 & 115:** Analysis of non-commercial pack stock group size limits is outside of the scope of this FEIS. In addition, the 2001 Wilderness Plan (FEIS pg. I-15) identified that consideration of party size limits was outside the scope of that planning effort: "Existing limits have been reviewed and determined sufficient for this planning effort." In the FEIS, consideration of group sizes larger than the current limit of 15 people for clients of commercial pack stock operators would create an equity issue where some selected groups would enjoy privileges not afforded other users. Also, use data shows that with the current 15 person limit, only 7% of pack station trips exceed 12 people (DEIS pp. III-8, IV-14). There is no compelling reason to alter the upper limits that have been in effect throughout the entire central Sierra Nevada wildernesses for the past 15 years. Consequently, party sizes above the established 15 for commercial pack stock operators are outside the scope of the FEIS.

**Public Concern #116:** *The DEIS illegally fails to consider group sizes smaller than the court-ordered limits of 12 persons and 20 animals per group for commercial pack stock groups. There is no indication in the District Court's rulings that it intended the Forest Service to limit its consideration of group size limits to 12/20 or larger, and there is every indication in the scientific literature that lower limits are needed to protect wilderness resources. During the scoping phase for this EIS, a large number of respondents asked the Forest Service to evaluate lower limits on group size for commercial pack stock. And our representatives made clear on several occasions throughout the process that the Forest Service must evaluate smaller group size limits as recommended by scientists.*

*The DEIS is deficient because it fails to evaluate and disclose the impacts of allowing such large parties to use these wildernesses. Alternatives 1 through 4 are deficient and non-viable because they fail to evaluate or propose group size limits that will protect the wilderness character from significant impacts that have been documented in the record throughout this planning process. The scientific literature clearly indicates that group size limits for stock animals should be no larger than 10 in order to protect physical, biological, and social values (Cole 1989a, 1990; Watson et al. 1993). (response # 196)*

**Response:** The Forest Service considered a reasonable range of alternatives (DEIS Ch 2) and displayed the environmental consequences of those various actions (DEIS Ch 4). Party size was identified as one of the significant issues (DEIS pg. I-8) and the indicator for that issue is "Locations where party size is less than wilderness-wide standard of 15 persons and 25 stock" (DEIS pg. I-8). Alternatives 1, 2, and 3 analyze a wilderness-wide party size of 15 persons and 25 head of stock, contrasted with Alternative 4, which analyzes 12 people and 20 head of stock, and Alternative 5 where no commercial stock would be allowed and party size not applicable. In Alternatives 2, 3 and 4 low use and low capacity site-specific locations are identified for less than the wilderness-wide party sizes. In Alternative 2 and 3 fifteen sites are identified with party sizes ranging from as low as 6 people/6 stock to 10 people/10 stock. In Alternative 4, 70% of the trailhead quotas would limit party size below the maximum of 12 people proposed in this alternative. The DEIS fully discloses the impacts of these actions for each alternative (DEIS pg. IV-19, 26).

**Public Concern #117:** *The DEIS is also inadequate in failing to consider that a lesser number of packstock is "necessary" today than in the day when 25 pack animals was deemed a reasonable upper limit (many years ago), because of recent significant reductions in the weight of necessary camping equipment and food. (response # 301)*

**Response:** see response to Public Concern #116

## Permits

**Public Concern #118:** *All permits for outfitter/guide (O/G) operations within wilderness should be subject to the Forest Service's outfitter/guide regulations, and have a maximum term of ten years. The Forest Service has signaled that it is considering issuance of long-term resort permits for commercial pack stock enterprises that operate in these wildernesses. Resort permits are not appropriate for most/all of these operations because most/all pack stations are not a complex of enterprises, but are instead a single enterprise: stock packing. The base facilities (improvements) for the majority of these operations are not significant. They tend to have a few rustic cabins/shacks, corrals, hitching rails, loading docks, and trailers. They are not resorts as defined by Forest Service policy and regulations. (response # 36, 196, form letter B, form letter D)*

**Response:** Decisions regarding the appropriate type of permit and term are outside the scope of this EIS, which does not include the type or term of permits authorizing use. The scope of this analysis is displayed in the DEIS (pg. I-7).

**Public Concern #119:** *Commercial packers should not be allowed to write their own permits (response #97)*

**Response:** No alternative allows for the packers to write their own permits. This decision was made in the 2001 Wilderness Plan and is not subject to reconsideration (see Purpose and Need – Chapter 1).

**Public Concern #120:** *Commercial packers' permits should be phased out as they expire, allowing owners and employees an economic transition. (response # 171)*

**Response:** Decisions regarding reissuance and administration of the Special Use Permits that authorize commercial pack stock use are outside the scope of this analysis. The scope of this analysis is displayed in the DEIS (pg. I-7).

**Public Concern #121:** *Commercial packers should be liable to citation and made to clean up their messes left behind; requiring records of where trips went and when camps were used would allow post hoc assessment of how particular packers treat the wilderness. (response # 305)*

**Response:** Commercial pack stock operators are required to prepare detailed reports of their use within the wilderness and the “reports will include as a minimum: number of clients, number of employees, number of stock, trailhead entry, trailhead exit, destinations of the service provided, stock or designated camps used and grazing activity by grazing zone or meadow” (DEIS pg. II-4). This direction is common to all alternatives. In addition, all wilderness permits will be written by the Forest Service (or designated contractor), thereby, providing an independent crosscheck on the packer reports.

**Public Concern #122:** *The Forest Service should/should not issue resort special use permits to commercial pack stock operators.*

**Comment:** *Pack Stations operate with “Resort Special Use Permits” from the Forest Service. These permits recognize the substantial investment made by individuals to provide service to the public. With regard to controls or allocation methods Pack Stations should be treated like other Resort Special Use Permits nationwide, where the permit holders are encouraged to operate as long as possible to make the best use of the public lands. (response # form letter F)*

**Comment:** Term Special Use Resort Permits are not given their due anywhere in the document. Pack Stations continue to be considered as outfitter guide permittees when this is clearly not the case. We believe this leads to numerous errors and faulty conclusions. (response # 355)

**Comment:** The Forest Service should be strongly encouraged to utilize national standards of 'allocation' for this type of Permit - use can be limited by limiting the number of livestock allowed by the Permit. In this case, a business can balance cost with demand. (response # 355)

**Comment:** The pack station permits are resort permits, different from O/G permits, yet much O/G administration methodology etc. is applied to them incorrectly and adversely. These term permits, often 20 year terms allowing 365 days of use, if available due to natural land conditions etc.. were traditionally renewed under the authority of NEPA using the categorical exclusion method. (response # 311)

**Response:** Decisions regarding the appropriate type of permit and term are outside the scope of this EIS, which does not include the type or term of permits authorizing use. The scope of this analysis is displayed in the DEIS (pg. I-7). The mechanisms presented in each of the alternatives comply with current policies regarding commercial pack stock management within the wilderness. The 2001 Court Order specifically ruled out Categorical Exclusions in reissuing Special Use Permits for pack stations operating in wilderness and "determined that in authorizing the special use permits for the pack stations, the Forest Service failed to adequately document environmental impacts as required by NEPA (DEIS pg. I-1)."

## Drift Fences

**Public Concern #123:** The Forest Service should allow/remove drift fences in the wilderness.

**Comment:** All of the drift fences in the John Muir and Ansel Adams exist primarily for the convenience of the commercial packers. All of the drift fences should be removed. (response #form letter D, form letter B)

**Comment:** Existing drift fences should remain in place and be maintained. These fences are effective tools for stock and meadow management and have the ability to minimize conflicts among users. The Forest Service should have more drift fences and should let the public know the advantages. Fails to be an adequate document without offering the various options. (response # 325, 275)

**Response:** The six alternatives provide various strategies for the management of drift fences in the wilderness (see FEIS, Chapter 2, Table 2.34 for a comparison of these strategies). The FEIS also contains an analysis of these strategies.

## Sanding of Passes

**Public Concern #124:** The Forest Service should not permit the sanding of passes.

**Comment:** Some specific aspects that we [Sequoia and Kings Canyon National Park] do not support are: The practice of "sanding." This activity poses several risks, including the introduction of materials to areas where they are not found, and the potential for excavation of materials from "borrow" areas. In other words it is not environmentally sound to bring in outside material or to "borrow" and displace local material to simply speed up accessibility. (response # 425)



**Comment:** *Proposals in the DEIS to allow sanding of snowbound passes will irreparably harm the wilderness resource and character and are unacceptable.*

*There are myriad significant negative impacts associated with sanding snowbound trails. Sanding facilitates earlier access to system or use trails and destinations beyond the snow blockage that are still either very wet from snow runoff or have other snow blockages. The DEIS also recognizes that importing sanding material, [C]ould possibly be a source of weed seed introduction.*

*An additional concern is that the Inyo National Forest has authorized the caching of sand in wilderness by commercial horsepackers in the past (i.e. sand is cached in the fall for use the following spring). Caches in wilderness are in violation of the Wilderness Act (16 U.S.C. 1133c) and inconsistent with the direction in the Forest Service Handbook.*

*Given the known adverse effects, the Forest Service can only conclude that the practice of sanding (or manuring) trails would create significant adverse effects on the environment. And given the negative impacts associated with sanding, and that the practice of introducing foreign material into wilderness for the convenience and economic benefit of commercial operators is antithetical to the Wilderness Act, the Forest Service should not permit the sanding of any trails, as in Alternative 4. (response # 196)*

**Public Concern #125:** *IV-122 it says that passes would be allowed to be sanded are Piute and Pine Creek. Almost all passes will be sanded in the John Muir and Ansel Adams Wildernesses. Sanding reduces erosion because hikers follow the sand.*

*Sanding is a traditional practice and has been used for over a hundred years and is necessary for livestock use in the Sierra. (response # 275)*

**Response:** In the FEIS selected alternative, access over passes – including the use of sanding and/or shoveling, is governed by certain criteria at destination camps, use trails, and system trails, in addition to range readiness standards.

## **Day Rides**

**Public Concern #126:** *The Forest Service should reduce or eliminate day rides in the wilderness*

**Comment:** *In Alternative 4, eliminate “day rides” in the wilderness. Commercial day use of wilderness resources adds to excessive trailhead area congestion and resource impact (including dust). Day rides should be accommodated outside wilderness; it seems only prudent to allow overnight commercial activity only. (response #form letter B, Form letter C, form letter E, 310)*

**Comment:** *The Forest Service should not allow day rides to increase above current levels. The USFS should expand horse riding opportunities outside of wilderness areas, and decrease or eliminate day rides in these wildernesses to reduce dust, trail erosion, and crowding on trails. (response #33, 35, 318, )*

**Comment:** *All limits on commercial outfitter use of these wilderness areas must include the impacts of day rides. Day rides must be included in outfitter use limits. (response #36)*

**Comment:** *Day rides should be limited to ten animals. (response # 194)*



**Comment:** *Alternatives 2 and 3 propose a substantial increase in the day ride allocation for commercial pack stations. There is no accurate data available on day rides historically, a deficiency identified in the 2001 Wilderness Plan ROD (at p. 15).*

*There is no rationale given in the DEIS for substantially increasing the day ride allocations in Alternatives 2 and 3, by 39% and 34% respectively. The DEIS also fails to disclose the non-wilderness day ride allocations and recent use data for the numerous operations that provide that service. For example, the 2003 operating plans for Frontier Pack Train and Mammoth Lakes Pack Outfits allocate 1,850 and 7,000 non-wilderness day ride service days, respectively. There is no justification, aside from economic benefit to the commercial pack stations, for increasing the number of day rides in these wilderness areas, as most of these rides are of short duration and are not wilderness-dependent. We believe that most people take these rides because they want to ride a horse, and not because they want to visit the wilderness. Wilderness day rides are thus not necessary, and should be reduced or eliminated, and the Forest Service should strive to provide day-ride opportunities outside of these wildernesses.*

*The DEIS contains little discussion of the impacts associated with day rides. In discussing Alternative 1, it does state, "Opportunities for solitude will not be high in first six miles from trailheads. . . ." (p. IV-15) However, the DEIS fails to disclose that day rides would be a major factor; day rides occur predominantly, if not entirely, within the first six miles of a trailhead. Furthermore, the DEIS does not express this same concern with Alternatives 2 and 3, which would both substantially increase the day ride allocations compared to Alternative 1. The DEIS must analyze and fully disclose the impacts associated with the proposed day ride allocations in each of the alternatives.*

*The DEIS fails to evaluate the impacts to trail condition of increasing day rides, and it fails to evaluate the increases in dust (a human health concern) in the heavily used trailhead areas. The only two legal approaches to this issue would be to eliminate day rides, or to reduce day rides in these wildernesses to those that are truly necessary under the Wilderness Act. Day rides could be increased outside of the wildernesses to provide horse rides for those who want them, and to provide replacement income for the commercial outfits. (response # 196)*

**Response:** The 2001 Wilderness Plan Needs Assessment identified that the general public does not possess the skills or equipment/stock to day ride in the wilderness. Day riding is a proper wilderness activity. As general public use trends change (2001 Wilderness Plan Appendix D-12, E) towards shorter duration outings, there is increased interest in day ride services. The Forest Service is of the opinion that a large segment of pack station clientele are aware of designated wilderness and wish to experience the wilderness from horseback. A team of resource specialists assessed the amount of day ride activities by alternative looking at many different aspects including current trail condition, risk factors, maintenance considerations, resource impacts and past use reports.

Day use is proposed in Chapter 2 and varies by alternative. Day use is described and environmental consequences are disclosed and compared in Chapter 4.

The comment regarding appropriate levels and types of use is an opinion. The analysis of use levels in the DEIS/FEIS focuses on the conditions or effects of the use levels, as much, if not more, than the use levels themselves. Use levels themselves are arguably more of a social/experiential consideration and in that regard they are considered. But the analysis of use levels is directed towards specific and identifiable effects on the resources. The Forest

Supervisor's Record of Decision describes the rationale in making the final determination of use levels standards and guidelines for commercial pack stock operations.

### Spot/Dunnage Trips

**Public Concern #127:** *Return trips by outfitters to pick up guests that they previously dropped off must be also included in the limits. (response #345)*

**Response:** Return trips for spot and dunnage are included in Alternative 2 and Alternative 2 – Modified. They are not considered when using trailhead quota mechanisms for managing use. This difference is covered in the analysis and comparison of alternatives (Chapter 4 – Wilderness).

**Grazing** (grazing comments are in the vegetation section)

### Recreational Categories

**Public Concern #128:** *The Forest Service should not implement the Recreation Categories concept*

- *Because the concept of zoning in the recreation categories is not in the Wilderness Act. Wilderness is to be managed as wilderness or a primitive area and not divided up into many little zones with different regulations about who can be there and under what circumstances. (response # form letter A and F, 34, 275, 355)*
- *Because any deliberate use concentration should be made because it is consistent with appropriate site specific destination management. Beyond this, all members of the public should have free access to the wilderness. (response # 325)*
- *Because the provisions of the Wilderness Act are meant to apply to the entire wilderness. Of the three categories of desired conditions described, only the first would be likely to maintain natural conditions in the wilderness. Wilderness values will not be protected in the Category 3 zones. (response # 392)*

**Response:** The three Recreation Categories were established in the 2001 Wilderness Plan (ROD pg. 3). Reconsideration of Recreation Categories is outside the scope of this FEIS, which deals with the allocation of use to commercial pack stock operators and trail management in these wildernesses. Alternative 3 does propose some minor adjustments to Recreation Category classifications as a result of field visits by the Interdisciplinary Team. In those Analysis Units changes proposed better match ground conditions with Recreation Category objectives.

## Range of Alternatives

**Public Concern #129:** *The DEIS does not contain a range of alternative capable of complying with the Wilderness Act. Alternatives 1 (implementation of the 2001 Wilderness Plan), 2 (June 2004 Proposed Action), and 3 (Forest Supervisors' currently "favored" action) all would be illegal because they would violate the Wilderness Act's mandate to preserve the wilderness character of the John Muir and Ansel Adams Wildernesses.*

*The Proposed Action (Alternative 2) and the "favored" alternative (Alternative 3) would allow substantial increases in commercial pack stock uses, and are so full of loopholes, invalid assumptions, and long-discredited practices that, on whole, the current Wilderness Plan would*

*be substantially weakened, and the wilderness character would be significantly degraded. The record shows very clearly that current levels of commercial pack stock uses are degrading the wilderness character in the John Muir and Ansel Adams Wildernesses, and Alternatives 2 and 3 in the DEIS would allow for significant, even substantial further growth of these commercial enterprises. The appeals court, in High Sierra Hikers v. Blackwell, has already ruled that such outcomes would be illegal.*

*These radically irresponsible proposals (Alternatives 2 and 3) are not even suitable as "fringe" alternatives, let alone preferred alternatives. Because they would not adequately protect the wilderness character to meet the mandates of the Wilderness Act, these alternatives should not have been evaluated in detail in this DEIS. In sum, the Forest Service must scrap both of these alternatives, and honestly evaluate a range of reasonable alternatives that can at least minimally meet the mandates of the Wilderness Act to preserve the wilderness character. The Forest Service should develop a range of reasonable alternatives, and re-circulate another Draft EIS for public review. (response # 196)*

**Response:** We believe the four action alternatives (Alternatives 2, 3, 4, and 5) in the DEIS adequately respond to a reasonable range of alternatives. The Final EIS includes another alternative, a modified version of Alternative 2. The range of alternatives and scope of analysis is determined by the Purpose and Need (Chapter 1) and to look at lower use levels and party size than Alternative 4 (or 5) would be beyond the reasonable analysis expected from NEPA. The stated position related to appropriate levels and types of use reflect opinions. The analysis of use levels in the DEIS/FEIS focuses on the conditions or effects of the use levels, as much, if not more, than the use levels themselves. Use levels themselves are arguably more of a social/experiential consideration and in that regard they are considered. But the analysis of use levels is directed towards specific and identifiable effects on the resources. The Forest Supervisor's Record of Decision considers the legal requirements of the Wilderness Act in making the final determination of use levels standards and guidelines for commercial pack stock operations.

**Public Concern #130:** *The DEIS does not contain an adequate range of alternatives because the Forest Service fails to provide an alternative that optimizes the public the opportunity to enjoy the wilderness with livestock in a manner that is consistent with the Wilderness Act.*

*Congress passed the Wilderness Act for many reasons. A significant goal is to allow man to travel in the mountains for days on end to experience land not significantly altered by man's modern civilization. Our wilderness areas, and for those of us in California, the John Muir and Ansel Adams Wildernesses, provide us the land so that we may experience the thrill and exhilaration of those original explorers who traveled in the West in the 1800's. Native Americans had the good fortune to live everyday in that environment before the European migrants forced them off their land.*

*The Forest Service fails to provide an alternative that allows the wilderness traveler to have freedom of movement and to travel in the wilderness in a manner that Congress intended when passing the Wilderness Act. Alternatives 1-5 fail to adequately give the public an option that permits wilderness travel consistent with the values of the Wilderness Act. A separate and new, Alternative 6 needs to be proposed that relies on primarily external controls and uses site specific management to provide resource protection. (response #275)*



**Response:** An analysis of the effects of internal versus external controls is found in the Wilderness section of Chapter 4. This information is used by the decision-maker to select a management direction that responds to resource protection and visitor access. The analysis has addressed these issues in Chapter 4.

**Public Concern #131:** *The DEIS does not contain an adequate range of alternatives because the DEIS fails to consider an alternative which is consistent with the protection and devotion of the area to historical uses such as pack and saddle stock and also considers alternatives which are inconsistent with this goal. In addition, the DEIS fails to consider alternatives which propose and evaluate variations to the Forest Service's draft National Trail Management Classes. Given the significance and very concrete impact with these trail management classes will have on the Wilderness Areas, this failure constitutes a violation of law. (response # 401)*

**Response:** In response to various comments, Trail Class definitions in the FEIS have been slightly modified and clarified to better meet the intended travel management of trails in the AA/JM Wildernesses. These definitions rely on the concepts of the Draft National Trail Classes and the Draft National Design Parameters so that they should be consistent with any future final national Forest Service concepts. The definitions are designed to be specific as to how the Inyo and Sierra National Forests intend to manage trails in these areas.

**Public Concern #132:** *The DEIS should analyze an alternative that requires that all users travel with a commercial provider, as this will provide the highest level of environmental protection. (response # 428)*

**Response:** Under the National Environmental Policy Act (NEPA), environmental analyses must consider a range of alternatives that address the significant issues and meet the need for the proposed action. The alternative suggested by the commenter does not meet the purpose and need and is outside the scope of the project. Further, this alternative is not consistent with the Wilderness Act which limits commercial services in the wilderness to the extent necessary for realizing the purposes of the Act.

## Alternatives, General/Multiple Alternatives

**Public Concern #133:** *I believe strongly that the Eastern High Sierra Packers Association's Alternative should be included and analyzed in the Final EIS. (response # 248)*

**Response:** The Eastern High Sierra Packers Association's alternative was reviewed and considered; however, it was not evaluated in detail, as it was determined it does not meet the Purpose and Need (Chapter 1).

**Public Concern #134:** *Action alternatives are made up of discrete management elements including destination quotas, daily and seasonal quotas on stock and people, trailhead quotas, trail class and use designations, grazing use levels, campfire closures, and campsite locations. The criteria used for determining the parameters of the elements of each alternative is not well described in the DEIS. For example, the reason for allowing trail sanding on only one pass in Alternative 2, while it is unrestricted in Alternative 3, is not provided.*

*The FEIS should describe each management element, its role in the use authorization action, and the environmental effects of the specific element. For instance, describe each type of quota and the likely effect of the specific quota on operator use patterns and operations, client experience,*

*and on-the-ground impacts. Describe how the parameters of each element in each alternative were developed and chosen. Also explain how internal and external use controls affect use patterns and environmental effects. (response # 427)*

**Response:** The effects of the alternatives, including the effectiveness of internal versus external controls are discussed in some detail in the Wilderness section of Chapter 4. The rationale for why certain elements are in each alternative has been improved in the final EIS. This is not a requirement of NEPA; however, we felt given the complexity of the alternatives, there should be a limited explanation of rationale. The selected alternative (Alternative 2 – Modified), complete with the rationale, is found in the Record of Decision.

**Public Concern #135:** *The Forest Service should/should not implement a certain alternative.*

**Comment:** *We cannot recommend or urge adoption of any of the five alternatives. Four and five are absolutely NO. But we find unacceptable provisions in the other three including the Forest Service preferred alternative #2. A plan that would permit and support the continued availability of commercial pack stock operations in the Sierra to service the public who desires and needs their services is the only acceptable action. In the Needs Assessment portion, the writer does conclude that there is a need for commercial pack stations, that it is legal in the Wilderness Act and that it is appropriate. Perhaps a new alternative of the best and least discriminatory aspects of 1, 2, and 3 could be crafted together. (response # 198)*

**Comment:** *Alternatives 1, 2 and 3 are totally unacceptable as these drafts allow a large increase in commercial pack stock use as compared to present levels. Pack stock use causes documented impacts to the resource far exceeding that which is caused by muscle powered wilderness compatible recreation. The Forest Service must decrease wilderness use by commercial pack stock and mitigate the documented impacts caused by these activities. (response #form letter B, form letter D, 25, form letter B)*

**Comment:** *I strongly favor modified versions of either Alternative 5 or Alternative 4. Given that horses can have more erosional impact than motorcycles (Wilson, J. P., and J. P. Seney. 1994. Erosional impact of hikers, horses, motorcycles, and off-road bikes on mountain trails in Montana. Mountain Research and Development 14:77-88), stock use in all but a few exceptional circumstances should be prohibited immediately rather than phased out slowly, although I understand that the political realities may require more gradual change. Ongoing exceptions to the ban might include rescue operations, Forest Service work (especially trail maintenance work), and disabled access. These uses are likely to require a low and limited level of use, unlike able-bodied parties paying commercial outfits for special privileges while pummeling the trail and littering it with feces. (response # 367)*

**Response:** As directed by NEPA, the DEIS and FEIS analyze a range of alternatives with various effects that respond to the significant issues (DEIS pg I-7). The Responsible Officials have selected the alternative they believe best fulfills the Purpose and Need of this planning effort. Comments that state a position for or against a specific alternative are appreciated as this gives the Forest Service a sense of the public's feeling and beliefs about a proposed course of action. Such information can only be used by the Responsible Officials in arriving at a decision and not for improving the environmental analysis or documentation.

It should be noted that the selected alternative (Alternative 2 – Modified) draws on many of the elements of Alternative 2, utilizing the conclusions of needed commercial operations from the Needs Assessment with an articulation of the extent needed in the Record of Decision.

The effects of stock and hiker use on trails are described in the Environmental Consequences section of the DEIS (p. IV-30)

## Alternative 1

**Public Concern #136:** *The DEIS is flawed in its characterization of the environmental impacts of Alternative 1, the implementation of the existing Wilderness Plan (i.e., no action alternative). The DEIS consistently presents arguments that attempt to discredit the existing Wilderness Management Plan, in favor of management direction in Alternatives 2 and 3 that would be even less protective. We in no way endorse Alternative 1 or the existing Wilderness Plan, indeed we appealed many aspects of it. But, we wish to point out this pattern in the DEIS of discrediting the existing Wilderness Plan, while the true implications of the management actions proposed in Alternatives 2 and 3 are never adequately analyzed or disclosed in an objective manner. (response # 196)*

**Response:** An explanation of the No Action is included in the beginning of the description of Alternative 1 in Chapter 2. The purpose of the No Action alternative is to provide a baseline from which to compare alternatives. We choose to describe the No Action in terms of “status quo,” disclosing that all the potential management direction from the 2001 Wilderness Plan has not yet occurred due to the intervention of the court and limited resources to achieve the court order and implement all aspects of plan implementation. This is not to say that we had never any intention to implement the plan. It is merely a description of what is the status quo. The No Action Alternative is a required alternative and provides the baseline to compare the alternatives to.

**Public Concern #137:** *Alternative 1 should be implemented:*

- *For the following reasons: a) alternative 2 and above are so restrictive that they will completely remove the opportunity to travel to little used areas. b) The reduction in travel opportunities will require the commercial packers to raise rates to the point it will be impossible to afford to employ a packer. c) Any other alternative will financially eliminate commercial packers from the Sierras. d) The elimination of the commercial packers will make it impossible to make an extended stay camp experience. (response # 363)*
- *With some site-specific controls. (response # 168)*
- *With no reductions in issuing permits. (response # 423)*

**Response:** The DEIS and FEIS analyze a range of alternatives with various effects that respond to the significant issues (DEIS pg I-7) as directed by NEPA. Various comments on the DEIS express support for one alternative or another. Comments that state a position for or against a specific alternative are appreciated as this gives the Forest Service a sense of the public’s feeling and beliefs about a proposed course of action. Such information can only be used by the Responsible Officials in arriving at a decision and not for improving the environmental analysis or documentation.



- *Because Alternative 1 represents the current level of mitigation and subsequent restriction on commercial pack stock operations in the Ansel Adams and John Muir Wilderness. This status quo, which represents an increase in restriction of commercial pack stock operations over historical activity levels, is the result of a previous environmental analysis performed in 2001 during the development of the Ansel Adams, John Muir and Dinkey Lakes Wilderness Plan Environmental Impact Statement. The Board believes that the 2001 analysis and subsequent mitigation accomplished its purpose. Of the alternatives presented the Board is supportive of Alternative 1, however, it is important that all concerns identified in this letter are addressed in whatever alternative is developed. The Board believes the additional restrictions to commercial pack stock operations, as proposed by the remaining alternatives outlined in the DEIS, to be unnecessary. These additional restrictions would result in significant economic impacts to commercial pack stock activity, an important historical and cultural pastime and a healthy segment of the local economy. Such impacts to the local economy could also result in a significant "ripple effect," thereby negatively affecting the county economy as a whole and impacting individual livelihoods outside the commercial pack stock industry and tourist economy of Inyo County. (response # 354)*

**Response:** Comment noted. The economic effects of each alternative are disclosed in the Final EIS.

- *Because the Snow Survey Program depends on having sufficient access to conduct these field observations. Summer and fall access is actually more critical than in winter because that is when we can perform infrastructure maintenance on our electronic and manual data collection sites. To that end, we are generally not in agreement with increasingly restrictive limitations on livestock and helicopter use which could adversely affect timely and feasible access to our data collection sites. We favor the "No Action" alternative in the absence of assurances that reasonable and feasible access for our program activities is safeguarded. We have observed through the years that there is a trend in wilderness management that "ratchets" in favor of restrictions, but does not allow for any loosening of restrictions if justified by objective criteria. (response #15)*

**Response:** None of the alternatives presented would affect access for the Snow Survey Program. Access to infrastructure would be considered administrative use and not subject to the management controls placed on public use of the pack stations. Helicopter use is outside the scope of the FEIS, and current policies are not affected.

## Alternative 2

**Public Concern #138:** *Alternative 2 would allow a substantial increase in commercial pack stock use, and it would eliminate the existing caps on commercial pack stock use. The proposal to eliminate current service day limits and trailhead quotas in favor of quotas on the number of trips is radical, untested, unproven, and unlikely to succeed. Furthermore, the quotas on number of trips are proposed at levels that would allow a significant growth in commercial pack stock use.*

*We strongly oppose the proposal to eliminate trailhead quotas and service day limits for commercial pack stock outfits operating in these wildernesses, as proposed in Alternative 2. The trailhead quotas are needed to prevent spikes in use that were identified by the 2001 FEIS (and*

the district court) as being a significant concern. The service day limits are needed to ensure that the number of commercially supported wilderness visitors does not increase over time. Elimination of service day limits would also cause many indirect problems. For example, certain provisions in the outfitter/guide regulations (i.e., Forest Service Special Uses Handbook) regarding service days may no longer apply if service days are eliminated.

The proposed quotas on number of trips per season would allow a substantial increase in commercial pack stock use compared to recent levels. The DEIS does not include a disclosure or credible analysis that compares Alternative 2's commercial pack stock regulatory scheme with past use. (response # 196)

**Response:** Alternative 2 and the FEIS selected Alternative 2 – Modified both use a destination quota to limit the number of trips. Our analysis shows that it is the number of stock, more than the number of visitors that contributes to the environmental concerns brought forward by the District Court. While we do not believe Alternative 2 – Modified will substantially increase use, we have identified a need for that level of use (Appendix D) that is consistent with maintaining wilderness character in these wilderness. Both the Record of Decision and Chapter 4 of the Final EIS contain an analysis of the effects of Alternative 2 – Modified on wilderness character. It is our conclusion that environmental and social concerns are significantly and sufficiently mitigated by limits on number of trips to destinations and that this mechanism, along with the other regulatory mechanisms in the alternative allow for a level of use that both meets identified need and preserves wilderness character.

**Public Concern #139:** *Alternative 2 should not be implemented:*

- *Because it seems to be very restrictive to the operator and users of commercial pack stock. This is a very bureaucratic alternative that will be difficult to enforce, monitor, and implement. (response #40)*
- *Because it has not been shown that the changes proposed in this alternative will reverse the downward trend of meadows, watercourses, trails, and campsites utilized by stock. There are no definite limits on stock in this alternative. It appears as though an increase (even a considerable increase) in stock numbers and resulting resource damage (at particular locations) seems possible under this alternative. (response # 392)*

**Response:** See response to Public Concern #137.

## Alternative 3

**Public Concern #140:** *Alternative 3 should be modified:*

- *So that there will not be a financial incentive for the packers to add unneeded animals to our type of trip. It seems to me that it would be in the interest of the forest to limit the number of animals required for a given number of users. The seasonal client limit in Alternative 3 may lead to the same problem that the Service Days have: groups with small numbers of stock are placed at a disadvantage. I encourage you to simplify the complex system in Alternative 3. (response #13)*
- *By removing the seasonal client threshold from all trails, not just those with single quotas. Although I recognize that people also have an environmental impact, the seasonal client quotas*

*seem redundant and entirely unnecessary when group size limits, trailhead quotas, and destination trip quotas are in place to limit the number of people entering the wilderness. In Alternative 3, some trails have daily trailhead quotas that are less than the group size limit. This Alternative does not discuss whether split quotas will be permitted on these trails. I urge you to permit this practice. Since the management plan is concerned with the impacts of pack stock, the plan that is adopted should encourage more trips with low numbers of stock and fewer trips using large numbers of stock with few people. (response # 333)*

**Response:** Comments that state a position for or against a specific alternative are appreciated as this gives the Forest Service a sense of the public's feeling and beliefs about a proposed course of actions. Such information can only be used by the Responsible Officials in arriving at a decision and not for improving the environmental analysis or documentation.

The practice of split quotas would continue in all alternatives except for Alternative 4, unchanged from its current application.

Direction regarding application of the Client and Stock Thresholds in Alternative 3 is described in the DEIS pg. II-42. "At the conclusion of each season actual use will be compared to the established thresholds. If thresholds are reached or exceeded, the responsible officer will make an assessment of the causative factors and potential resource implications. If conditions are within standard (sic) and guidelines, the responsible officer can allow the threshold to be raised with definitive monitoring goals and objectives identified. If any evaluation indicates that conditions do not meet standards and guidelines or desired conditions corrective actions including reduced thresholds, additional destination quotas and/or campsite or other site specific closures will be considered." Quotas, on the other hand, are limits that cannot be exceeded.

**Public Concern #141:** *Alternative 3 should/ should not be implemented.*

**Comment:** *Alternative 3 should not be implemented:*

- *Because it will only allow increased degradation of the wilderness by profiteering commercial outfitters. (response #30)*
- *Because it will allow a substantial increase in commercial pack stock on the trails and it would fail to address the many impacts of commercial pack stock on the trails and pathways of our wilderness areas. The alternative does not set an upper limit on the number of commercial pack trips in the wilderness and increases the group size from 20 animals per trip to 25. (response #33, 36, 145, 166, 179, 230, 396)*
- *Because implementation of the alternative is left to the judgment of the Forest Supervisors who will be expected to rely on future studies and evaluations which may not even occur (response # 166)*

**Comment:** *Alternative 3 should be implemented:*

- *With the camping restrictions of Alternative 1. (response #40)*

*Because it seems to represent a fair compromise, employing trailhead quotas, combined with a limited number of destination quotas, depending on local conditions. We presume that quotas would be altered season-to-season, as a result of monitoring. (response # 175).*

**Response:** See response to Public Concern #137.



**Public Concern #142:** *Alternative 3 would allow a substantial increase in commercial pack stock use, and eliminate the existing caps on commercial horsepacking use. In this alternative, service days would be eliminated and replaced with non-binding thresholds on commercial stock numbers and clients, which are characterized in the DEIS (at II-42) as general guidance. Besides no longer mandating any binding cap on use, the principal significance of this change is that instead of a service day cap that applies to a particular pack station, the seasonal thresholds apply to particular trailheads, which may apply to multiple packstations. Elimination of service days would have the same adverse effects as described above for Alternative 2. Further, the DEIS does not make a credible attempt to compare the proposed guidance thresholds to historical levels of use, or to the existing service day allocations. Such a comparison is difficult to make, as some destinations in the interior of the planning area may be accessed from multiple trailheads, and by multiple packstations.*

*Alternative 3 apparently relies on setting client threshold guidance that exceeds average historical use by an even greater percentage (an average of 73% for these six trailheads) than the stock threshold (32%). But, given that these thresholds are non-binding, and that the allocations are substantially inflated compared to past use, it is not likely that they will result in any limitation on use, either to the number of clients, or the number of stock. (response # 196)*

**Response:** The respondent's comparison uses a mean of three years of data, and two years are at reduced use levels, and then uses the mean to compare proposed stock numbers which indicates a considerable increase. First, this is misleading, as the mean is not a valid approach to measure increases. But more importantly, the objective of the proposed management direction is to manage stock impacts, not to "hold the impacts static." In addition, the objective is to improve conditions where they need to be improved and manage for a range of settings and experiences and conditions that is consistent with the purposes of wilderness and the desired conditions established in the 2001 Wilderness Plan. It is misleading and simplistic to assume that simply an amount of stock relates directly to an amount of impact and that maintaining use maintains a condition. Our selected alternative employs many tools to achieve goals and conditions, and stock controls are only one of the tools we are using to manage for conditions.

**Public Concern #143:** *There is no explanation in the DEIS as to how the daily quotas and seasonal thresholds are determined and whether any objective criteria are used in calculating these limits. Also, despite the assurance on page IV-27 of the DEIS that impacts to new areas will be reduced over the short and long-term some experts maintain that these impacts to new areas are the most serious impacts. (response # 392)*

**Response:** See the response to Public Concern #134 above regarding rationale and justification. We have provided more rationale for the derivation of quotas and thresholds in each of the alternatives in the FEIS.

## Alternative 4

**Public Concern # 144:** *Alternative 4 should/should not be implemented.*

**Comment:** *Alternative 4 should be implemented:*

- *Because this alternative better limits the number of pack stock and impact to the environment (response #153, 305, 313)*

- *Because it follows the letter and spirit of the Wilderness Act. Wilderness belongs to all Americans, and commercial users should not have the right to excessively impact it. (response #110)*

**Comment:** *Alternative 4 should not implemented*

- *Because it is too restrictive and it reduces service levels (response #40)*

**Response:** See response to Public Concern #137.

**Public Concern # 145:** *Alternative 4 should be modified:*

- *With changes to better protect these magnificent wilderness areas. In particular, Alternative 4 needs limits on stock numbers, lower group size limits for stock, fewer (or no) day rides (to protect trailhead areas from overcrowding and trail deterioration), later grazing start dates (to protect meadows and lakeshores from trampling damage), lower "service day" allocations for pack outfits (to address chronic resource impacts), and lower campfire elevations for commercial outfits (i.e., 9,600 feet north and 10,000 feet south, with no exceptions) to protect soil and vegetation. (response #form letter D, form letter G, form letter B, 100, 299, 306 328, 359, 360, 367, 368, 369, 378, 381, 389, 391, 393, 394, 395, 400, 406, 409, 414, 422 )*
- *By decreasing the "service day" allocations for pack stock outfitters (from current levels). Allocations for both the number of commercial participants (including crew) and pack stock must be lowered to a level that does not impair the wilderness resource. (response #form letter B, form letter D, form letter E, 36 )*
- *By setting clear upper limits on the total number of stock animals that may be used in a group. 25 is too many as is 20. Grazing start dates must be changed to better reflect the cycles of the environment. There are months when soil and lakesides are more vulnerable. High elevation campsites should not have campfires as they are quite fragile and cinder piles leave an ugly mark upon the landscape. Trails without the infrastructure and capacity for stock animals should not be used for stock animals. (response #25)*
- *With maximum allocation numbers identified. An allocation ceiling must be identified for both commercial participants (including crew) and pack stock. Both people and livestock impact the resource, and both must have an identifiable use limit. The identified allocation maximums must protect the wilderness from impairment. Wilderness as a resource should not be sacrificed for the profit margin of commercial activities in wilderness. Identifying maximum use limits assures that the resource will be protected while still allowing commercial Activities. Daily use limits must be established. Commercial activities must be limited by a maximum daily use limit to decrease weekend and holiday crowding. This is only fair as such limits apply to the general public who do not use commercial services. (response #form letter B)*
- *With changes to strictly limit stock numbers and the places they go. One head of stock for two people is adequate in the wilderness; for a group of six, a decent maximum that is three mules, six horses to ride if they must and one for the packers, ten head of stock (response #93)*
- *By reducing the current limit of 20 animals per group. (response #145)*
- *With no increase in use above prevent levels. This includes present day rides groups, size of overnight parties (both customers and stock animals), daily trailhead quotas (like those imposed on backpackers), no campfires where fires are not presently allowed, and no stock cross-country*

travel. There are also good reasons to lower items such as party size and trail quotas. (response #98)

- By reducing the service day allocation to address degradation of the wilderness character that has occurred, and is occurring (and being exacerbated) by current levels of commercial pack stock use. The DEIS incorrectly assumes that the service day allocations proposed in Alt. 4 represent a reduction in actual use. The DEIS fails to acknowledge that the service day allocations in Alt. 4 would result in significant growth (approximately 36% growth) of commercial pack stock enterprises over time, and it fails to acknowledge the resulting impacts associated with that growth;

Add controls on the number of stock, not just people. The DEIS identifies the following concern with Alternative 4: "With a reduction in people serviced and controls on people, not stock, there is a potential for stock numbers to increase. (IV-27)." The obvious remedy for this concern is to limit the number of stock animals, as well as people. This is the only way to achieve the goal of reducing the stock/client ratio, which would optimize the number of commercial pack stock-supported visitors that could visit the wildernesses, for a given level of impact;

Allocate commercial horsepacker service day allocations by type of service (i.e., spot, dunnage, full-service, day ride, re-supply). Each type of service impacts the resource and wilderness character to a different extent. Thus, the most effective means to manage these impacts would be to establish limits for each type of service;

The Forest Service must take a more conscientious and reasonable approach to the approval of user trails. Scientists have long recommended that stock animals should not be allowed to travel off of designated, maintained trails, except in rare cases where site-specific environmental analyses demonstrate that a specific route can be open to stock use without increasing erosion rates or otherwise adversely affecting the wilderness character. Yet the Forest Service simply approved most of the off-trail travel routes requested by the commercial packers, without even surveying the routes and surrounding environmental conditions. (This is a clear violation of the District Court's injunction, which required the Forest Service to follow specified criteria for approving off-trail use by commercial packstock. One of those criteria is that such routes must be existing, visible trails;

Reduce the elevational campfire closures to 9,600 and 10,00 [sic] feet north and south of the San Joaquin River, respectively, with no exceptions;

Reduce the group size limits for travel on designated trails to maximum 12 persons-per-group, maximum 10 stock animals-per-group, and for off-trail (cross-country) travel a maximum of 8 persons-per-group, with no stock animals allowed off-trail, except for grazing at approved forage areas;

Eliminate day rides within the wilderness areas;

Alternative 4 lowers some commercial trailhead quotas so that many are less than 15 on major trails and does not allow split quotas (borrowing). This latter provision removes a loophole that allowed large groups to gain access to a low use/quota trailhead by seeking the services of a commercial packer.

Without these modifications to Alternative 4, it fails to preserve the wilderness character. (response # 196)



- *By reducing the commercial packstock service days to eliminate day rides, eliminate 1-way dunnage trips, and eliminate full-service trips for all but truly disabled folks. (These just aren't necessary. Focus necessary commercial stock use on spot/dunnage trips to allow wilderness access for people who can't hike or carry a pack; such trips are the lowest impact); reduce the maximum group size limit for commercial outfits to 12 persons and 20 heartbeats, maximum (on designated system trails), with 8 persons and zero stock animals off of system trails; include limits on stock days to prevent commercial stock use from increasing over time; do something to require dogs to be under control. (I am so tired of being harassed by dogs on Forest Service lands. Take a look at the rule in the Emigrant Wilderness, which is a good, fair approach); lower the campfire elevation to 9,600 feet (north) and 10,000 feet (south) to be more consistent with the surrounding parks & protect high-elevation ecosystems. (The existing fire elevations are bogus & were established based more on politics than wilderness protection); remove all drift fences from the wilderness. (They're just for packers' convenience, and aren't necessary); come up with a more realistic plan for regulating grazing (i.e., don't allow grazing where stock can drift into sensitive "closed" areas).*

*Maybe if you do these things you will regain the public trust as well as make progress toward proper wilderness stewardship. Alternatives 1-3 are bankrupt bad ideas and/or business as usual. It's time for the Forest Service to rein in the packers, take control, and make some decisions that protect the wilderness character, instead of the commercial packers' wallets.*

*Oh, and by the way, the idea of allowing packers to haul firewood into closed areas is ridiculous. It's unenforceable. They won't follow the rules. You'll have on-going problems forever. Just forget about granting special exceptions to the commercial outfits. It won't work, and it's not fair. (response # 346)*

**Response:** These suggestions for modifying Alternative 4 are addresses in Chapter 2 of the FEIS in *Alternatives Considered, but Eliminated from Detailed Analysis*. This alternative was not considered in detail because we believe that merely reducing commercial services to arbitrary levels below Alternative 4 does not demonstrate a corresponding improvement to the condition of the wilderness and justify the draconian reduction in public access to these wilderness areas. In effect, "Modified Alternative 4" is the same as Alternative 5 in that the severe restrictions proposed for this alternative would likely result in a number of the commercial operators going out of business and quite possibly the eventual elimination of commercial packing services in these wilderness areas.

## Alternative 5

**Public Concern # 146:** *The Forest Service should/should not implement Alternative 5.*

**Comment:** *The Forest Service should implement Alternative 5.*

- *Until the agency can regain its regulatory independence and, by protecting wilderness for future generations, serve the public. (response #100)*
- *Because given the dishonest treatment of history, the clear bias in favor of commercial companies, the poor analysis, and the generally useless nature of the document to allow a true understanding of the current situation, Alternative 5 is the only alternative that will address the ongoing harm being caused by these companies. (response #105)*

- *Because of the negative impacts related to pack trains. (response # 319, 353, 356, 371)*
- *In a manner that phases the pack stock operations out over a couple generations as these operations are usually family-owned. (response # 396)*
- *Because Alternative 5 is the only alternative that is in accord with the purpose of the proposed action and the requirements of the Wilderness Act. (response # 392)*

**Comment:** *The Forest Service should not implement Alternative 5.*

- *Because stock has always been a part of the wilderness. (response #40)*
- *Because the Forest Service has shown a need for these services in the Needs Assessment (response #277)*
- *Because there is nothing in the DEIS that would support this draconian alternative (response #277)*
- *Because closing down commercial pack operations is not appropriate. I think that the Forest Service should continue to work with the parties involved including the packers, find areas of concern, and do what's needed to mitigate those concerns in order to come to an agreed upon solution. (response #44)*
- *Because it is unnecessarily draconian. With proper limits, it seems that pack stock led by responsible commercial outfits can be accommodated in the wilderness along with those entering on foot. (response #145)*

**Response:** See response to Public Concern #137.

**Public Concern # 147:** *The DEIS's evaluation of Alternative 5 does not have rational validity. In discussing Alternative 5, the DEIS states that, "Campsites will likely not improve since they will continue to receive use and impacts have already taken place. Only with additional management would campsite rehabilitation, containment, and improvement to the site take place. It is likely that without the commercial use, this work would have less of a chance of getting done, whereas if commercial use were to continue the improvements to campsites, access, size and proximity to water would occur under Alternatives 2, 3 and 4." (IV-29) These statements do not make sense. Conditions at campsites would improve significantly without the holding of stock, etc., as the sites recover over time. And there is no valid reason to conclude that campsite rehabilitation would be more likely to take place if commercial pack stock impacts continued to degrade them. (response # 196)*

**Response:** Research does indicate that once an impact reaches a point, unless there is significant mitigation, the impact will persist and recovery will be very slow. Specifically, forested environments where soils has been severely compacted, will take some time to recover regardless of use. Sites that have moisture and do not get continued use, may recover quicker. But the campsites that commercial pack stock has frequently used will continue to get use from backpackers, private stock, just at a lower use level.

**Public Concern #148:** *In discussing Alternative 5, the DEIS states that, "It is also possible that with the removal of stock there may be an increase in backpackers. Those hikers and backpackers that have avoided areas where pack stock use is high may plan more trips than they currently do." Thus the Forest Service acknowledges that current levels of commercial stock use displace noncommercial visitors. However, they inaccurately portray the situation, in that there*

*cannot be an increase in backpackers without an adjustment to the non-outfitted trailhead quota. Alternative 5 does not provide for re-allocating the excess capacity formerly used by commercial operators to the non-outfitted public, which has a demonstrated need and demand for it. Thus, the DEIS omits a significant implication of Alternative 5, and fails to disclose its true impact to the public. (response # 196)*

**Response:** It is correct to say that Alternative 5 does not provide for re-allocating the commercial pack stock use. There is no indication that the non-outfitted public has demonstrated a need and demand for additional use or that capacities have been reached. Chapter 3 shows the number of days non commercial quotas are being filled, which do not show that many days are currently filled (one exception is the North Fork of Lone Pine which is a hiker only and the commercial quota is non pack stock). And, even if quotas are being filled, it does not constitute a need to raise the quota just to meet demand, as the ultimate objective is to preserve wilderness character which includes environmental and social considerations. The alternative does not address future public allocations, primarily because the purpose of this alternative is to demonstrate the effects of eliminating this user group, not replacing that use with additional non-public use of a different kind. It is not even considered a reasonably foreseeable action in this alternative to increase the non-public use, since, as stated above, there is not a significant demand for that use.



### III. Environmental Consequences

#### Commercial Pack Station Operations

##### General

**Public Concern #149:** *The Forest Service should encourage packstock operators to invest in and use lightweight equipment that reduces the number of packstock required and the consequent environmental effects. (response # 399)*

**Response:** The Forest Service does encourage the packstock operators to invest in lightweight equipment, and other minimum impact techniques, as required of the *Annual Operating Plan, Appendix E, Resource Protection/Leave No Trace Practices for Stock Management*, and is considered part of the administration of the special use permits. The Forest Service also encourages permittees to view the video *Caring for the Land, Stockpacking in the Sierra* for minimum impact stock use in the wilderness and to attend Leave No Trace, Stock Masters training.

**Public Concern #150:** *The Forest Service should not micromanage commercial pack stock campsites, campfires, and grazing. (response #32)*

**Response:** The Forest Service is engaging in site-specific management of wilderness resources, not commercial pack stock. The site-specific nature of the destination management strategy allows the agency to pinpoint resource concerns and apply the appropriate measures to remedy the problem.

**Public Concern #151:** *Packers should be required to use dung-catchers on their animals and to pack out their excrement. (response # 318)*

**Response:** The use of dung-catchers is not practical, nor safe, for the animals on steep mountainous terrain. The Forest Service does not consider this a practical means of operations, nor is it identified as a significant resource issue.

**Public Concern #152:** *The pack trains should stop at the wilderness border. The commercial outfitters should be given an additional permit only when they can show proof that they went out and spent a week repairing damage to trails, meadows, streams and trees that they caused. That seems fair—one week of repair for each new permit and no access to areas designated as Wilderness. (response #12)*

**Response:** As demonstrated in the Needs Assessment and the analysis in the Final EIS, commercial packing is a legitimate use in these wilderness areas. It should also be noted that commercial packers already assist with trail maintenance.

**Public Concern #153:** *If the Forest Service is serious about reducing the stock/client ratio, then they should propose a real mechanism for doing so. Currently, the billing practices of commercial packstations, whereby clients are charged based on the number of employees and pack stock utilized, favor maximizing the stock/client ratio. Commercial horsepacking is not operated in the same way as a freight-hauling business, where the handler charges based on the*

*quantity of freight, and the hauler has an incentive to minimize the amount of equipment used and maximize its efficiency. (response #196)*

**Response:** Forest Service did consider and evaluate control mechanisms that directly or indirectly affect business practices and number of stock used by pack stations. However, control mechanisms were generally designed to protect wilderness resources and not specially to provide “incentive to minimize the amount of equipment used and maximize its efficiency.”

**Public Concern #154:** *The DEIS does not adequately disclose the effects to operations including: (all comments from response #275)*

- *Sawmill Pass will be closed to commercial stock. Essentially wipes the option away in the future for pack stock to take a trip into Kings Canyon. And, the way the alternatives are written, commercial pack stock probably won't be able to exit either.*

**Response:** Based on the Table 2.3.1, page II-85, DEIS, Alternative 1 proposes the Sawmill Pass trail as trail class 3. Alternatives 2 and 3 designate the Sawmill Pass trail as trail class 2. Both designations allow access by commercial stock. Alternative 4 proposes trail class 1, “Not suitable for Commercial Stock.” All trails were assessed using various standards by the Interdisciplinary Team. The Forest Service understands this difference in opinion and considered this comment while developing the FEIS.

- *Red's Meadow Pack Station won't be able to originate trips and head south on the Muir Trail. No allocation for stock headed on the John Muir Trail from Red's Meadow.*

**Response:** This was an omission in the DEIS and will be corrected in the FEIS.

- *Operating areas will give each operator a monopoly. Rock Creek Pack Station will not have the ability to operate trips on the John Muir Trail. Possibly 2 trips per year from Rock Creek to Yosemite. Who is going to get to do those trips?*

**Response:** Alternative 2 – Modified has removed the concept of operating areas.

- *Stops most traveling trips. The document does not disclose that campsites on Mono Creek where you can graze and have a nice camp have been closed. There isn't enough grazing to support less than three or four trips per year;*

**Response:** Traveling trips will be allowed. It will be the pack station's responsibility to work within the decision parameters.

- *Grazing going from Mono Creek to the Fish Creek area has been closed off; Once you get to Fish Creek area you can't spend more than one night since there is a one night stay (essentially won't be able to fish any of the lakes unless it is a spot trip).*

**Response:** comment noted

- *Cost of any traveling outfitted trip will increase significantly. The document indicates cost will increase 25%. The document does not disclose that with only two trips a year, the cost will rise to the highest bidder.*

**Response:** The Economics section of Chapter 4 discloses that there is potential for the cost of some trips to increase as a result of new restrictions and regulations. Exactly how expensive these trips will become is somewhat speculative.

- *Hiking with stock trips will be unable to go down the Muir/PCT trail because of designated campsite and controlling operating plan areas.*

**Response:** The DEIS analyzed campsites, as identified by the packers. The Forests believe enough campsites will be designated in appropriate places to allow hiking with pack support to continue. If clients wish to stay at a site that has not been designated as a stock camp, the stock and staff can continue on or return to the designated stock camp.

- *Alternatives 2 and 4 substantially increase wilderness use for dunnage and spot trips. The Wilderness Act was supported and promoted to protect the continuous traveling trips like the Sierra Club trips.*

**Response:** The agency's interpretation of the Wilderness Act does not include this contention that the Act was passed to protect traveling trips.

- *The trail system in Hilton Lakes and Tamarack Area has been closed. (response # 275)*

**Response:** Although commercial pack stock use is managed, the trail system in the Hilton Lakes and Tamarack Area has not been closed.

**Public Concern #155:** *The DEIS does not describe existing environmental conditions at the Pack Stock Stations. Nor does the DEIS evaluate potential environmental effects of these Pack Stock Stations or the effect of commercial pack stock use authorizations on the environmental conditions at the Pack Stock Stations. The FEIS should include a description of existing conditions at Pack Stock Stations, especially those located on Forest Service land. Evaluate the potential environmental effects of action alternatives and use authorization on existing conditions. For example, describe existing conditions and potential effects of reduced or increased use authorization on water quality, meadow conditions, and threatened and endangered species habitat at Pack Stock Stations locations. (response # 427)*

**Response:** Analysis of the pack station operations and facilities not in the Ansel Adams and John Muir Wilderness are outside the scope of this EIS. The scope of the analysis is displayed in the DEIS (pg. I-7). Impacts at the base stations and in areas outside the AA and JM will be appropriately considered in the analysis to reissue the authorizing Special Use Permit for the entire pack station operations.

## Operations, Llamas

**Public Concern #156:** *The Forest Service should not be allocating use to llama operators.*

**Comment:** *There is no historical precedent and llamas are not part of the historical pack stock use nor are they heritage resources of this John Muir Wilderness, nor the Inyo and Sierra National Forests' trails, and use. Why is this proposal even included in the document? Why take use from our established pack stations that are suffering from the 2001 Wilderness Plan and Court ordered reductions. This particular llama user has illegally used the Inyo and Sierra National Forests and Sequoia/Kings Canyon with no permit. Even after operating illegally, the operation is assigned twice as many service days than an established, legal outfit such as Sequoia Kings Canyon Pack Outfit. (response #279)*

**Comment:** *Llamas have a greater impact on the landscape compared to mules; for example, they can't carry as much weight, tend to browse brush and trees and transmit diseases to Bighorn Sheep. (response # 311)*



**Comment:** *IV-20 Chapter IV - third paragraph to say that 500 more service days for commercial llamas will have no additional effect on resources is wrong.*

*It is the duty of the Forest Service to state what the impacts of llamas and 500 more service days of people will have on the environment.*

- 1. Where do the llamas graze?*
- 2. What is the impact on llamas on water quality?*
- 3. Which areas of the wilderness will llama groups travel to in the wilderness.*

*One needs to look at the impact of commercial llama parties because the llamas traditionally only go five to seven miles per day. That means that llamas in the Rock Creek area will be going to Little Lakes Valley, Hilton and Ruby Lake if they are going over Mono Pass.*

*And, by allowing llama packers to compete with the commercial quota of a regular packer you will have commercial mule and horse packers utilizing other areas that they wouldn't have used prior to competition with llama trips.*

*Llamas are a new use and inconsistent with the Wilderness Act. It is a new use and the needs assessment in the EIS for the John Muir and Ansel Adams Wilderness area fails to show they are needed. (response # 275)*

**Comment:** *The USFS proposes to add llamas to the trail and allot high use levels to them. There has been little demonstrated need for llamas and it appears as though the agency is creating demand where none currently exists. (response # 279)*

**Response:** The 2001 Wilderness Plan identified a need for a small amount of llama packing services in the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses. Alternative 2 – Modified modifies that direction by reducing the allocation from 500 to 250 service days from the 2001 Plan.

## Pack Station Specific Comments

### Cottonwood

All comments are from response #38

#### Quota

**Public Concern #157:** *Alternative 2, Quota: While I disagree with this type of regulation completely, I will comment on the specifics: 50 trips to Cottonwood – one spot trip has always been considered “a trip.” It was never thought of as two trips. Further, since I am limited to 25 round trips, I will be forced to take only spot trips (since I can rent more stock on this, with clients riding and all clients taking at least one pack mule). Also, I will be forced to sell as many as all-expense trips as I can. This makes no sense! It discriminates against the dunnage trips/hikers who want help carrying their gear. This is just reworded service days will the same problems.*

**Response:** The number of trips assigned was determined using the packer reported use in recent years. Reported use summaries are part of the planning record. Reported two way spot and dunnage trips were split out as two trips, in and out, in the analysis data. Hence, the high reported reflects a two way service as two trips. Refer to table in App B. of the FEIS, page B-1, Table 1 Pack Stations Use by Analysis Unit for summary of reported use.

Spot and dunnage services are considered separate and have a separate allocation of trips from all expense services. Although it is possible to wait for large parties, or for spot trips instead of dunnage, it is probably not practical or probable from a business standpoint. But, the more important point is that this is the same level of use that has been occurring. If currently businesses are not waiting for larger groups or spot instead of dunnage, it is likely that will not start happening with a different mechanism, however monitoring and adaptive strategies are built into this alternative in order to respond to unintended consequences or unacceptable impacts.

**Public Concern #158:** *Alternative 2, Quota: Trail Crest – 10 trips – what does this mean? What if the trips are continuous hire? The EHSPA MOU agreed there would not be a limiting number on one way dunnage where the clients hiked over Trail Crest.*

**Response:** The ten trips identified for Trail Crest include one-way services provided, including spot or dunnage, where the client hikes out to the Whitney Portal unguided by the pack station.

The allocation of 10 trips for Trail Crest reflects the Wilderness Plan established reservable quota of 25. Chapter 2, Alternatives 2 and 3 propose a maximum of 10 trips. This use is analyzed in Chapter 4. There are relevant issues raised by Sequoia Kings National Park that affected the selected alternative quota. The EHSPA MOU does not direct the decision.

**Public Concern #159:** *Alternative 2, Quota: Seasonal and Daily Stock Limits: 35/day; 300 season: this is an unreasonable number. If I had to use 35 head/day – this would be less than 75 clients round trip (when you include packer horse) – there is no way I can maintain a viable business with this number. It could mean less than 50 people per season based on the number of stock/party and the necessary packers needed. This is unworkable, with 300 head of livestock per season, I could hit my quota in less than 9 days of operation.*

**Response:** Stock numbers per day and season were determined using recent reported use data which is part of the planning record. Refer to the table in Appendix B., page B-1 for a summary of use in the Cottonwood Analysis Unit. The high stock use reported into the John Muir Wilderness was 296 in 2001. Based on historic use patterns, it is unlikely that use will be maximized as described. This analysis considers use only in the John Muir Wilderness. Service provided into the Golden Trout Wilderness is a large component of Cottonwood Pack Station's total business. Comment noted and considered in developing the FEIS.

**Public Concern #160:** *Alternative 3, Quota: There is no way with a 300 seasonal stock that I can accommodate 200 clients. In reality, the client threshold is less than 75 (when packer stock are counted). To overlay this with 15 daily quota is overly restrictive. This is flawed math. I cannot remain viable with this kind of restricted number. It is apparent that the only type of wilderness user the Forest Service desires us to cater to is the backpacker/hiker.*

**Response:** Reported use data for the Cottonwood Lakes Basin is part of the planning record. Stock numbers per day and season were determined using reported use data. Refer to table in Appendix B., page B-1. Forest Service considered this comment when developing the FEIS.

## Trails

**Public Concern #161:** *South Fork Cottonwood Creek, Ref #148 – there is no reason to close this trail, especially if I want to use it for day and ½ day rides to make a loop trip. This trail is not user created – it was built by a Forest Service crew, it has rock structures and layout. It was rumored to have been built about the same time as New Army Pass by the Army Corps of Engineers. It was the main trail to Lower South Fork Lake and Cirque Lake.*

**Response:** Some segments of this trail show some very simple trail structures, and it is likely that some basic design was incorporated at one time; however parts of the trail are located in some sensitive areas with risk factors, and would be hard to maintain under recurring use. If this route were used frequently as a loop trail—either for day rides or for traveling between South Fork Meadow camps and the Cirque Lake and Cottonwood Lakes Trail—it would need to be maintained at a much higher level to maintain stability. The Cottonwood Lakes Trail is a well-built and maintained trail which accesses the same destinations, so access to these areas is provided on a stable route.

**Public Concern #162:** *UT 140 and UT 141 – This should not be closed. Nobody camps here. This is very necessary for my ½ day and all day rides. This is where fisherman like to be dropped off. If these trails are closed, the fisherman and hiker will still be there. Fish and Game's employees spawn fish in these lakes and this will continue. Chapter 4 claims that these trails should be closed to reduce foot traffic around the lake, closing the trail to commercial stock will not change this. This is discrimination.*

**Response:** The Cottonwood Lakes System Trail provides access to the outlet of Lake 4 and Lake 5, where clients can be dropped for angling. UT 140 is a trail that leads to and along the back sides (west shores) of Lakes 4 & 5. Clients can still walk this trail, but commercial pack and saddle stock will be prohibited.

System trails or approved use trails provide access to the same destinations that UT 141 would, along Lake 2 and Lake 3. The location of UT 141 on the map may be in error, as no stock-used route is visible west of Lake 2. In either case, the use trail duplicates access with system trails.

### Day Rides

**Public Concern #163:** *There should not be any limit on day rides as long as there is no limit on day hikers. 200 is the number used in Alternative 2 for Cottonwood. While that number is workable, there should not be a number. Alternative 3, day rides: There should be no numbers counted on day rides. This is discriminatory. While 200 is a nice number (better than 41), it is unreasonable to limit this use. The service is supplied to visitors in Lone Pine, there will never be an overuse. There is no reason for this number and it restricts my ability to maintain a viable business as day rides provide needed cash flow especially as wilderness use is restricted.*

**Response:** This EIS is concerned with disclosing the environmental effects of commercial pack stock not day hikers. The day ride allocations in Alternative 2 and Alternative 3 represent the average day use over the last three years. Alternative 2 – Modified (the selected alternative) does not include a specific limit on day rides, but rather relies upon a total number of stock in the wilderness cap to provide maximum flexibility to the commercial operator.

### Designated Camping

**Public Concern #164:** *Camping Limitation: My historic camp at Muir Lake has always been at the east end of the lake. This is my historic all-expense camp. There is a trail to this camp, it should be mitigated to allow this use as I have very few options. The public does not desire to stay at the west side camps. Many hiking groups use the camp as the east end.*

**Response:** The selected alternative does not limit access to historic pack stock camps on the east at Muir Lake, II-37. The current route to the camp has some resource concerns and risk factors, so access will be allowed via a designated alternative route. If no practical alternative exists, some stabilization of the current route may occur.



**Public Concern #165:** *The DEIS does not adequately disclose the implications of allocating several more trips-per-year to SEKI, and several trips to locations in the planning area for which there are no records of permitted historical use.*

*Alternatives 1, 2, 3, and 4 would allocate overnight service days to Muir Trail Ranch for the first time, despite stated concerns about resource impacts, overlapping operators, and conflicts with other wilderness users. There has never been an official allocation of overnight service days for the Muir Trail Ranch, which the DEIS fails to acknowledge.*

*We are adamantly opposed to any overnight service day allocation to Muir Trail Ranch. The Florence Trailhead, from which Muir Trail Ranch operates, was assigned a resource rating of Red-Yellow in the 2001 Wilderness Plan. (response # 196)*

**Response:** The current permit for Muir Trail Ranch authorizes a total of 319 service days of use consistent with the 2001 Wilderness Plan allocation. Prior to this permit, they had been authorized a total of 500 service days. The use recorded for the “high two” as shown in the 2001 Wilderness Plan was recorded by the permittee as day use. This was based on the definition found in the Outfitter-Guide Administration Guidebook which states that day use is “Outfitting and guiding involving no overnight use of National Forest System Land.” Muir Trail Ranch has guided clients to the SEKI Park for many years. Although the clients remained in the park overnight, it was still recorded as day use because the park was not National Forest System Land and they did not spend the night on the Forest. However, under the 2001 Wilderness Plan this same use was defined as Packstock Supported Overnight Use. Based on this new definition the use into SEKI should have been converted to Packstock Supported Overnight Use in the 2001 Wilderness Plan. It was not changed because the Sierra NF was either not aware or did not understand the difference in definitions. This is corrected in the DEIS – Alternative 1 by splitting their current 319 service days between day rides (184) and overnight use (135). The total service days have not changed and this merely brings the Muir Trail Ranch service day allocations into alignment with current definitions. These mistakes were discovered when the 2001 Wilderness Plan was implemented in 2002.

Use figures based on tally sheets for Muir Trail Ranch show the following totals: 2001 was 185 day rides with one trip to Evolution Valley in SEKI for 2 service days with 3 head of stock (This trip in 2001 was prior to implementation of the 2001 Wilderness Plan and understanding that this would be considered Packstock Supported Overnight Use by the Wilderness Plan definition), in 2002 there were 150 day rides, 2003 there were 115 day rides and one trip to Evolution Valley in SEKI for 10 Service days with 5 head of stock (Packstock Supported Overnight Use using the Wilderness Plan definition). This trip to Evolution was previously recorded on the spreadsheet as day use, 2004 was 115 day rides with no trips into SEKI.

The “Red, Red/Yellow Trailhead Evaluation” from the 2001 needs assessment was not specific to commercial uses. Some areas, such as Blayney Hot Springs were given these concern ratings yet had little or no relationship to commercial pack station use. The use levels proposed for Muir Ranch were considered and evaluated in the FEIS, and found to be compatible with preserving the wilderness character.

**Public Concern #166:** *The DEIS fails to document or demonstrate that there is need for an additional packstation to offer overnight services in the Florence area when High Sierra Pack Station and Lost Valley Pack Station already offer these services.*

*In 2004, High Sierra Packstation utilized only about one-third of their service day allocation, while Lost Valley Packstation substantially exceeded their allocation. Florence is one of the busiest, if not the busiest trailhead on the west side. The Forest Service should be proposing ways to limit use, reduce conflict, and protect the resource in this area, not allocating additional commercial use.*

**Response:** The DEIS does not propose an additional pack station to provide services in the Florence area. The 2001 Wilderness Plan identifies the four pack stations that are in the area and allocates service days. In the case of Muir Trail Ranch the service days are shown entirely in Day Rides, which is in error, 135 of the 319 service days shown should have been categorized as Overnight Use. The correction does not represent any change in use, but merely reflects a clerical error in the 2001 Wilderness Plan. The correct allocation of service days is shown in Alternative 1 in the DEIS.

The DEIS discloses that overlap may occur in the Florence/Bear area and may increase, but this is not identified as an issue. The Preferred Alternative (and Alternative 2) in the FEIS proposes use that is controlled by very specific destination quotas, along with daily and seasonal stock numbers. Overlap of different pack stations is not in itself an issue since the destination quotas limit each operation to a specific number of trips to a particular location or zone. The numbers of trips were allocated appropriate to the destination, "Generally locations that were suitable and sustainable were identified for potential growth while areas where impacts were high or current use was of a concern were identified for reductions" (DEIS pg. IV-482).

In 2004 Lost Valley Pack Station had no use.

**Public Concern #167:** *The Forest Service must analyze the non-conforming use of the access road to Muir Trail Ranch and Lost Valley Pack Station.*

*Vehicle use of an access road to Muir Trail Ranch and Lost Valley Pack Station has not been previously disclosed and is creating significant impacts. In a FOIA request submitted in 1998 to the Sierra National Forest, we specifically requested all documents related to non conforming uses in wilderness, including vehicle access to private in-holdings. No documents specific to this request were supplied, so we were left with the impression that this was a nonissue. The 2001 Wilderness Plan FEIS did not identify the several mile long four-wheel drive road and motorized access as an issue or non-conforming use, nor do the Special Use Permit and Operating plans for Muir Trail Ranch and Lost Valley Pack Stations. This begs two questions: (1) what authorizing instrument was used to establish and justify this non conforming use; and, (2) was an analysis and public process performed under NEPA?*

*We first learned of this situation in the DEIS (at p. IV 481 & 482):*

*"Both Muir Trail Ranch and Lost Valley have private in holding within the interior of the wilderness boundaries. A four wheel drive access trail to private in holdings will continue as a non conforming use. The presence of the road has both experiential and environmental effects. Multiple trailing has occurred due to confusion, desire for direct access to east bound destinations and historical grazing by the pack stock associated with the permittees in the area. This causes some confusion and a high density of trails in a small corridor. Both the presence of the road and the confusion and resource impacts of multiple trailing can diminish the wilderness experience for users. Both the private in holdings and their associated four wheel drive access trail impact wilderness character."*

*This statement identifies negative impacts to the physical resource, the experience of visitors, and the wilderness character, but then indicates that this non conforming use will continue and measures to mitigate the situation are not up for discussion. The Forest Service cannot permit additional/new services from either the Muir Trail Ranch or Lost Valley Pack Station. Law and policy require that non-conforming uses such as vehicular access to inholdings should have been analyzed prior to commencement of such activity. An analysis of this non-conforming use must meet the standards in the Wilderness Act. Until this analysis is completed, or documents provided that indicate this analysis has been adequately accomplished, this non-conforming use should cease. (response # 196)*

**Response:** Muir Trail Ranch has a Special Use Permit that was issued to them on July 13, 1956 for the purpose of "Using and maintaining an existing public jeep road between the boat landing at the southeast end of Florence Lake and the Muir Trail Guest Ranch. The road is to be used for hauling freight and guests between these two points and to a lesser extent for the same purposes by other landowners in the Blayne Meadow Area." A previous Special Use Permit for this road was issued to Nate R. Combs on Jan. 2, 1948.

The area surrounding the Muir Trail Ranch became wilderness as part of the California Wilderness Act of 1984. The jeep road to Muir Trail Ranch is mentioned in a Committee report (Report No. 98-40) on pages 21 and 22. In this report it is stated "As a final matter, the Committee notes that the boundaries of the wilderness additions were drawn with the understanding that traditional motorized access will be allowed in the private inholdings within the wilderness by special use permit. The particular lands in question are owned by Karl Smith of Ahwahnee, Fred Ross of San Jose, and David and Miriam MacKenzie of Menlo Park. Current access to those inholdings is by primitive road from Florence Lake to the inholding itself. The committee intends that the designation as wilderness will not preclude the Forest Service from continuing to issue appropriate special use permits for access to and from those properties."

The Wilderness Act (Section 5. (a)) provides for "...such rights as may be necessary to assure access to such State-owned or privately owned land..." Initiation of an analysis of the access to the private lands is outside the scope of the FEIS. This access is under long standing Special Use Permit that pre-dates wilderness designation. The right of access is based on private land ownership and long term private businesses that occur on private land and not on the off-site pack stock portions of the landowners businesses. The FEIS analyses the use of pack stock on National Forest System lands that occur off the private land.

### **Rock Creek Pack Station/Mt. Whitney Pack Trains**

**All comments are from response #275**

#### **General**

**Public Concern #168:** *The Forest Service has already decided to eliminate Mt. Whitney Pack Trains. In the Executive Summary they have removed Mt. Whitney Pack Trains. When you read through the entire 1000 page document you will see that the Forest Service decides to eliminate this most historical pack station. That is because the Forest Service has decided to have spot and dunnage trips. Mt. Whitney is typical of the style of packing the Wilderness Act intended to save.*



*And realistically, the Congress was more aware of Mt. Whitney Pack Trains because it was the main packer to the Sierra Club. How ironic that the Forest Service in 2005 proposes four times the use for llama operators as the historic Mt. Whitney Pack Trains. (response # 275)*

**Response:** The Forest Service is not eliminating Mt. Whitney Pack Trains. In the DEIS, Alternatives 1 through 4 analyze the services provided by Mt. Whitney Pack Trains (Alternative 1, page II-7, proposed current Wilderness Plan service day allocations). Alternative 2, as proposed in the June 2004 Proposed Action distributed for scoping, pages 74 and 83, allows a service day allocation and seasonal and daily stock quotas. (The DEIS service day information for Alternative 2 was left out inadvertently.) Alternative 3, page II-41, proposes a service day allocation and existing daily trailhead quotas. Alternative 4, page II-56 proposes a reduced service day allocation from current Plan allocation. All alternatives were described and analyzed in Chapter 4. There are no base facilities authorized or used in conjunction with the Mt. Whitney Pack Trains operations. The selected alternative analyzes Mt. Whitney Pack Trains as an authorized outfitter/guide providing pack stock services. Pack stock operators under outfitter/guide special use permits will be counted in existing daily trailhead quotas. The Forest is not eliminating full service trips offered by commercial pack stock operators. The selected alternative has revised the extent of llama operations.

### **Trails, Comments on Chapter 3**

**Public Concern #169:** *There are a number of trail-related discrepancies in the Draft EIS that affect Rock Creek Pack Station.*

**Comment:** *III-80- Disagree with assessment of trail at Second Crossing.*

**Comment:** *III-92: The Mono Pass Trail was put in without adequate water bars. The standards of construction were not followed with complicity of the Forest engineers. It is not the heavy use that destroyed them but lack of maintenance and proper water bars.*

**Comment:** *III-93 Trails in 3.2.1.3 Hilton Trail System*

*The plan says that the trails on the Hilton Ridge are simply shortcuts. Not true. This was the original trail to Davis Lake and has been continually used since 1919. The trail to Lake #3 has not been maintained or poorly maintained since according to Keith Waterfall, the Deputy Forest Supervisor said not to maintain it until the Trail Plan was finished so that there would be a place for the llamas to go.*

*The Pine Grove to Hilton Lakes trail is used by stock. It is a vital link between the Lower Corral and the Hilton area.*

*The trail that the writer says is a shortcut is shown on the main Inyo National Forest as a system trail. It is improper for this document to imply that a system trail is shortcut. And, to remove a system trail since the 1920's with wrong and deceitful information is improper.*

*Why doesn't the Forest Service say that they don't maintain the trails, clear logs and this is the reason there are bypass trails. And, many of the trails are from stock out grazing. Inadequate analysis of the whole trail system in Fourth Recess AU.*

*As part of this DEIS, the Forest Service should include their trail maintenance plans for the various regions the last 20 years. This information combined with a history of the new trails and reconstructed will help the public in their analysis.*

**Comment:** III-94 Fails to say that the Third Recess Trail has not been maintained or water bars kept in place. Wilderness managers and some elitists in FS want this to be a stock free area and purposely didn't put any time or money into trail. When and how much money was spent on this trail over last thirty years?

The shortcut trail you describe is a main trail that was primarily used by the Westside packers to get to Pioneer Basin. And, it has always been in use as a trail. It is not a shortcut but a regular trail.

**Comment:** III-95 We use the Second Recess trail crossing all the time. "impassable?" It shows how little the Forest Service knows about what is going on in the wilderness. We have repeatedly asked for fixing the crossing to make it easier. However, the wilderness management team purposely has refused to let the trail get more difficult.

This is another perfect example of how those elitists in the Inyo and Sierra National Forest achieve their personal aims to eliminate stock when management direction stated to maintain the trail.

**Comment:** III-138. Shepherd Pass. Shepherd Pass can be maintained if there is management direction to move rocks near the top. Inyo Management doesn't want stock up the trail and purposely spends all the money close to the road so it is easy to get home.

If there was proper staff and direction, a few good men could clean the rock and maintain the Shepherd Pass Trail. A Sierra Club volunteer group maintained the trail for a few years ago and it was a wonderful trail.

**Comment:** We strongly object to the Forest Service removing the system trail that the DEIS calls 2904C. This has been a system trail and is not a cutoff. The Forest Service fails to analyze the effects of removing a trail that disperses use and allows for a significant amount of stock to travel to Davis Lake without affecting other users at Lake #2.

The trail to Lake #2 from Rock Creek is very poorly constructed and the steps are difficult for livestock, children and disabled people. This DEIS implies throughout the document that this is a cutoff trail. The Forest Service needs to be honest to the public.

Please refer to our previous correspondence regarding this trail from Rock Creek to Davis Lake. This trail should be maintained at a class 3 or 4. The Forest Service proposes closing this trail because it allows the District Ranger and Wilderness Manager to exert control over the commercial packer. This is primarily a personal vendetta instead of decision based on resource concerns and the general public.

The Pine Grove to Hilton trail should be at least maintained for a 2 or 3 and it is a good trail from the Lower Corral to Hilton.

It is good to maintain the trail to Lake #3 and Lake #4. The trail to the 5th-9th lake should have maintenance to keep the water from further eroding the trail. Commercial stock should be allowed as it has been since the early 1900's.

The trail system in Pioneer Basin is not correctly drawn. Need to allow for user created trail that cuts across the dry section from Lake #2A over to the trail coming from Mud Lake to Lake #4. This is environmentally the best route and allows you to travel to the tarns.

*We have provided comments in writing and orally regarding the trail system in Hilton Lakes, Tamarack Basin and Little Lakes Valley. We would like those comments and submitted maps to be considered as part of this record.*

*Local Forest managers propose a highly bureaucratic set of rules and regulations that increase jobs and responsibility for Forest Service mid-level officials and their ever increasing staff. Where is the money and commitment by Congress to find the staff to monitor and manage the ambitious programs in Alternatives 2-5?*

*Trails are closed such as the trail from Long Lake up towards Morgan Lake where the Sierra Club trip of 1963 camped. An ideal campsite and the area is beautiful and in excellent shape. However, the Forest Service restricts use to this camp. Access is good and the resource is protected.*

**Comment:** *Disagreement with specific trail assessments and decisions:  
Second Crossing Use Trail*

*Hilton Trails – Maintain UTs to 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup> Lakes.*

*Pine Grove to Hilton – Critical access from lower corral.*

*Hilton Ridge Trail and Hilton Cutoff – put back on system.*

*Mudd Lake to Mono Creek Camps Use Trail – add to system.*

*Third Recess and Second Recess – just need better maintenance.*

*Shepherd Pass Trail – Just need better maintenance.*

*Pioneer Basin – Incorrect locations and decisions.*

**Response:** Trails were assessed using a team of specialists looking at many different aspects on each trail, including current trail condition, risk factors, maintenance considerations, resource impacts, consistency with other destination direction, and records of past recent commercial activity. An objective assessment process was followed on trails visited by the IDT. It is understandable that there may be different opinions about these trails, and these comments were individually considered for the selected inventory in the FEIS. Where appropriate, the comments above were incorporated into the Final EIS and Alternative 2 – Modified.

**Public Concern #170:** *We do not feel that this document adequately discusses removing system trails such as the Hilton trail. In page 33- it says, "trails removed from the inventory generally did not exist on the ground and there appeared no reason to provide transportation management to this destination." However, this DEIS does not follow this procedure when eliminating trails in the Rock Creek/Hilton drainage.*

**Response:** Another factor considered in removing trails from the system is whether there is duplicate access provided. While the primary Hilton Lake trail may have some isolated characteristics that are not comfortable to equestrians, this trail is generally stable and can sustain repeated stock use.

**Public Concern #171:** *III-95- We disagree with your comments that the Goodale Pass Trail is stable. It is deteriorating rapidly and is treacherous for stock. It is probably more dangerous to stock than the Second Recess Crossing. The Forest Service calls the Goodale Pass Trail good*



*and Second Recess Crossing impassable. A perfect example of the inconsistencies of writers of the plan not having a clue about stock use and trails.*

**Response:** Goodale Pass trail is generally stable and in good condition in the Graveyard AU (south of the Pass). However, on pg III-81 in the DEIS, the description of the Goodale Pass Trail in the Silver Divide AU, (north of the Pass), states: "...it is in degraded condition" and compares it with a nearby use trail as "equally awkward, with jumpoffs and erosion."

### Campsites

**Public Concern #172:** *Designated campsites are a terrible consequence to the public and not consistent with the Wilderness Act. And the closure of camping from Third Recess to Second Recess is even worse than having a few camps. The Forest Service proposes a few designated campsites for Rock Creek Pack Station and fails to tell the public what that impact will have when they go to take a pack trip.*

**Response:** The purpose and need in the DEIS (Chapter 1, I-5) clearly states the agency's intention to follow the legal constraints of the Wilderness Act. There is no language in the Wilderness Act that prohibits the designation of campsites. Reference DEIS Chapter I-3, Purpose and Need for Action, Item 1, states: "There is a need for establishing additional management controls for commercial pack stock operations in order to achieve and maintain desired resources and experiential conditions identified in the 2001 Wilderness Plan and ROD." The Record of Decision for the 2001 Plan gave the Forest the ability to establish designated sites (page 4) in order to protect wilderness values. We believe that designated campsites are consistent with relevant laws, regulations and agency policy. Refer to DEIS, III-96. The Mono Pass Trail has been identified as an area of special American Indian concern and is currently considered and evaluated as a potential Traditional Cultural Property. Use of campsites known to be located directly on cultural sites is known to have direct impacts.

## McGee Creek Pack Station

**All comments are from response # 355**

### General

**Public Concern #173:** *We prefer alt 2 with seasonal stock quota and seasonal day ride service days being replaced by total number of stock allowed by the Permit.*

*What we would prefer to see: Limit number of livestock on the McGee Creek Pack Station permit to 65. Determine highly visible spot/dunnage and stock holding camps as: Horse Heaven, Sheep Camp, Point Camp and Hilton Camp in Upper Fish Creek; Genevieve Cloverleaf and Edith (no stock holding unless authorized by line officer on special occasion); Davis lake outlet camp; Round Lake and Grass Lake in McGee Canyon. Then, repair all access, reinforce any stream banks or crossings necessary. This work should be done cooperatively by the end of summer 2006. Until then limit number of stock to Clover-leaf/season to 50, with a definite sunset by the time Special Use permits are issued. Maintain trails to other lakes and campsites as determined by trail alternative's 1 & 2. (Alternative 1 plus 2 trips/year to Meadow Lake). Make a designated tie up area at Round Lake and Beaver Meadow. Allow caching of feed in bear proof boxes out of sight of the public, especially in overnight spot trip areas. Allow spot and dunnage trips access as done historically to low use areas on a limited basis. (1-2 trips/year - counted as 1 party/1 trip)(areas such as Meadow Lake, Lee & Cecil Lakes, Constance Lake.*

*Allow spot and dunnage trips to all other areas as provided by limited number of livestock on permit. Limit day rides by number of livestock on the permit, allow mitigation needs for higher use areas, (day ride tie up or turnaround areas, etc). Further concerns, mitigations, emergency measures or problem areas can be addressed by the annual Operating Plan written by the Permittee, the District Ranger and the Permit Administrator.*

**Response:** All of these comments were considered in the Final EIS and when Alternative 2 – Modified was created. Some of the suggestions above are beyond the scope of this project. Once completed, the SUP EIS document will give the District Ranger and the Permit Administrator the authority to determine mitigations measures for problems and emergency situation under the annual operating plan.

### **Day Rides**

**Public Concern #174:** *Day rides - McGee Creek numbers (in the best possible scenario! Alt. 3 - the alt. that allows for growth ) increases our numbers by nine! There should be no number on Day rides, until and unless the FS analyzes day use by all users. The court did not ask for day use to be limited in anyway. There is no significant rationale for this small amount. Day use should reflect demographics. Increased visitation to the Mammoth Lakes area; shorter vacations filled with more activities. Horseback riding is one of those activities. Overnight wilderness use is decreasing steadily - the demand is for short, daily experiences. When businesses are being overly penalized in one area, we should not be burdened with additional penalty in not allowing ANY growth in day use. Alt 2 has a reduction of 40 clients, this is not ok. Again, there should be no numbers, but if day riders are to be counted essentially with service days there should be a minimum of 900.*

**Response:** Specific limitations on day rides are not included in Alternative 2 – Modified. Rather, a stock in the wilderness at one time cap is implemented. This will provide additional flexibility for operators wishing to provide day rides.

Day use outside the wilderness will be considered under the SUP EIS. Opportunities for expanding short, daily experiences will definitely be addressed under the SUP EIS with an emphasis on developing opportunities for growth in non-wilderness areas.

### **Quota**

**Public Concern #175:** *There is disagreement as to the quota and threshold numbers allocated to McGee Creek Pack Station in the Draft EIS.*

**Comment:** *McGee Creek - too many quotas and thresholds. Allocation limitations need to be dictated by the number of stock allowed on the permit for overnight use and for day use.*

*As shown the seasonal client threshold discriminates against the spot and dunnage trip groups. The Seasonal stock threshold does not allow the public to enjoy wilderness as they see fit. Congress dictated that these Wilderness areas should be 'untrammeled' - not controlled by human device. This multiple layering of quota's, thresholds, etc certainly restricts and controls the ability of the American public to enjoy their Wilderness areas. We disagree with these methods. We continue to advocate for the one appropriate method of 'limitation' - the number of stock allowed by the permit. This allows the business owner to balance cost with demand. In turn this provides maximum quality service due to a healthy business operation.*

**Comment:** McGee Creek Pack Station advocates for a maximum number of livestock allowed by the permit. A total of 70 head of livestock to be used to supply public demand.

**Comment:** Alt 2: Seasonal Stock quota of 700 too low. Allows only 14 days of operation at maximum. It also allows for a possible maximum of 300 spot/dunnage trip visitors. When packers stock is included, this is a very low number, highly restricted from past years, with no reason.

**Comment:** Alt 2: Destination quotas based on low years of court injunction - this appears discriminatory. It appears as if there is no understanding of our business operations - a spot trip should never be counted as "2" trips. A spot trip is one round trip service. To count a round trip dunnage as 2 trips is also irregular and discriminates against the lower 'impact' type of trip. Due to campfire closures in upper McGee, the number for Grass Lake is too low. Same with Horse Heaven - campfire closures increase the need for use of areas open to campfires. Numbers for Cloverleaf, Genevieve and Hilton are also too low. We appreciate the ability to take 1 trip a year to Meadow Lake. Rock Creek has 44 trips to Hilton Lakes, most of which are All-Expense with stock, while ours are mostly spot trips. Our low number should be raised.

**Comment:** The "seasonal threshold for McGee Creek is lower than the current allocated Service Days. Further, it is half of pre-2001 Wilderness Plan use. It would likely allow for service of fewer than 200 people per year. The Stock threshold discriminates against the spot trip party forcing us to provide only dunnage services! This is a forced loss of revenue!

**Comment:** The Laurel Quota and Seasonal Stock Threshold ignores the admitted errors in the 2001 wilderness plan where data of commercial use was ignored or forgotten. This DEIS continues the same error. This trail is heavily used to access the Convict basin and is the only way to access the basin. By lowering the quota to half of the legal party size it becomes impossible to accommodate larger families. This is a huge basin, the many camps are ideal for groups of 10-15. Use by the hiking public is limited, there is no rationale for the overly restrictive numbers. The seasonal stock threshold of 80 is impossibly low. This would mean only 2 spot trips of approx. 7-8 could enter the basin in 1 entire season. This is RIDICULOUS! No where is there a rationale for this low number. NUMBERS SHOULD BE RAISED TO DAILY Quota of 15, "Seasonal stock threshold of 500. Regarding quota, even Cloverleaf Lake allows a group of 15 - yet the reserveable quota does not allow a group of 15 to enter the Wilderness.

**Comment:** Trail Crest - page II-44. It is beyond our understanding why the Forest Service considers a trip commercial when hikers hike out in 1 day over trail crest with the packer carrying their gear back to the starting trailhead. Why would the Forest want to block and deny the very use they should be encouraging in order to reduce overnight stays on the Mt. Whitney trail? 40% of the quota should remain available as stated, the statement "but are currently unguided and unsupported to exit Trail Crest." should be dropped. "Exit Trail Crest" also establishes the improper use of an exit quota.

**Comment:** Destination Quota's - Limiting Cloverleaf to essentially 2 spot trips is not supported and there appears to be no rationale for why this would improve the current condition of the trail. (See party size comments). Limiting the entire Convict basin to 18 trips or 9 spot trips is not supported. Limiting Tully Lake to only 2 spot trips is not supported.



**Response:** Comments noted and considered in the FEIS. The six alternatives propose quotas, thresholds, maximum number of stock in wilderness at one time and stock limits at pack stations.

Allocation of service days were developed by using the highest year of a three-year average. These service days included and counted the spot and dunnage trip as two days which reflects the current operation—not a decrease.

Trail Crest Exit Quota was established prior to the 2001 Wilderness Plan and was supported and retained at that time; this trail provides additional access to the Mt Whitney Trail which is the most heavily used and regulated trail in these two wildernesses. Commercial guiding is not needed or authorized on the Mt Whitney Trail except for special circumstances. Pack stock use is prohibited. No additional management direction is necessary for Trail Crest.

Alternative 2 – Modified provides for unguided trips by commercial pack operators.

### **Primary Operating Areas**

**Public Concern #176:** *Primary operating areas are assigned yet Pine Creek given trips in Hilton. This is not a warranted decision. There is not historic use of the Hilton Lakes basin by Pine Creek Pack Station, nor is it a primary operating area.*

**Response:** Primary operating areas will be assigned under the SUP EIS document.

### **Party Size**

**Public Concern #177:** *Party Size - Tully Lake is reduced by party size as well (8) in this alternative - With limited numbers of trips (2) why reduce the party size as well. Limiting the Tully Lake campsite to groups of only 8 is not supported by any reasonable rationale. The legal group size should be allowed. Using Recreation categories to rationalize this limit is a violation of the Wilderness Act.*

**Response:** Tully Lake area was assessed using a team of specialist looking at campsite density and carry capacity of the area. It was determine that the Tully Lake area could accommodate a party of eight or less without increasing the degradation of the wilderness character along with a total number of two trips a year.

### **Trails**

**Public Concern #178:** *There are a number of trail-related discrepancies which affect the operations of McGee Creek Pack Station.*

**Comment:** *I-117 Trail 2802 - Trail displayed as Level 2 and as NRFS. Trail should not be reduced from level 3 to level 2. Not appropriate for access to area. This is the main canyon trail. Lower part (which is no longer accessible to stock) should be distinguished as separate from rest of trail.*

**Comment:** *I-118, Trail 2802A - Dorothy Lake Spur. This is a major trail to access only camps at Dorothy - Should not be Level 1.*

**Comment:** *I-119, Trail 2804 - Laurel Lake to Edith, (use trail continues to Cloverleaf). This trail was built by the Forest Service trail crew and is currently the only access for stock to the Convict basin. Trail is major route to the canyon due to closure of Convict Canyon trail (by default - lack of repair), should be a Level 3 not 2. Trail from Edith to Cloverleaf Creek Crossing is the same as the system trail, it is not a user trail. Currently user trail is better trail than*

system trail. System trail needs to be repaired and maintained. No maintenance has been done for over 20 yrs. on that trail.

**Comment:** I-120, Trail 2902C - Baldwin Canyon. Should be a level 3 Trail. THIS IS A MINE ROAD! Should not be downgraded due to Forest Service lack of maintenance. The only needs are water removal. Very simple fixes. Currently there are wooden and steel culverts on the road which are plugged up.

**Comment:** I-121, Trail 2902 C - Baldwin Canyon - Should not be downgraded from a Level 3 to 2. Again, this is a mine road! Simple maintenance would resolve minor issues of water running down the road from summer thunderstorm activity! Should not be reduced due to forest inefficiency or lack of resolve on the part of past trail/wilderness manager. HIGHLY CONTESTED - in Trail Suitability Table - this is TOTALLY CLOSED TO Pack Station in ALT. 3!!! This is discriminatory - how does the Forest distinguish use by commercial stock vs. private stock. This is heavily used by private stock owners from Mammoth!!!! Alt. 2 should be adopted. Further this road has the potential to be a Heritage Resources designation.

**Comment:** I-122, Trail 2902D - Steelhead lake. Should not be reduced to level 2. Major access to 2 lakes of McGee Canyon. Very popular areas, with high use. Beginning terminus confusing?

**Comment:** I-124, Trail 2902F - Baldwin Cutoff. It is appropriate as shown in Alt. 3 - should be Level 2 trail class, as long as trail always allows use by Pack Station. Beg. & End. Terminus description is incorrect: Beg. Term is 1.2 mi above junction of McGee Pass Trail and Baldwin Canyon Road. Ending terminus is at McGee Pass Trail above Steelhead junction.

**Comment:** I-125, Trail 2902G - Big McGee Lake - Level 2 is appropriate as shown in Alt's 1 - 4, as long as open to Pack Station stock.

**Comment:** I-126, Trail 2907\*- Hopkins Pass. This trail should not be listed as 0. It was present at the time of wilderness designation. Should be maintained on the inventory, even if at Level 1.

**Comment:** I-127, Trail 2902, McGee Pass - appropriate as shown in Alt. 3: Level 3.

**Comment:** I-128 - I131 are appropriate.

**Comment:** I-132, Trail 2000.3, PCT - this trail should remain as a Level 4 trail in Alt. 3, (as in Alt 1 & 2).

**Comment:** I-136, Trail 2902H - Tully Lake - need to have historical access to Tully lake via whichever trail is deemed safe and appropriate

**Comment:** UT87 - Cloverleaf North of Creek. This trail is approved in Alt. 1 & 2 until the system trail is repaired. It should also be approved in Alt. 3 under the same conditions.

**Comment:** UT93 - Baldwin Cutoff. Use is approved until Canyon/McGee Pass trail is fixed. (Designation of trail is incorrect). Once Canyon Trail is repaired, Baldwin cutoff needs to still be approved for use for ACCESS to campsite. This access can be stipulated from one trail or the other, but at least from one, most likely the Baldwin Canyon Mine Road trail.

**Comment:** UT94 - Round Lake campsite - which "new route to relocated campsite"? What needs to be done as identified by Inyo Line Officers is re-enforce the stream bank.

**Comment:** UT95 - CCC Camp site access - is approved in Alt. 2 but Prohibited in Alt. 3. This trail should be approved in alt. 3 as there is assigned use in the Alt. 3 to the campsite. This was a packer camp long before it was used by the CCC.

**Comment:** CANT FIND HILTON LAKES DRAINAGE IN System Trail Table 2.3.1 (Recieved by email from Marty Hornick 6/6/05). Hilton Trails 2942 should remain Trail Class 4. The rest of the Hilton trails look appropriate.

**Comment:** As for improving access to the CCC camp above Big McGee, that is a good idea. However in Alt. 3 access is denied until "Heritage Clearance". This is unreasonable. This was a packer camp long before it was a CCC camp. Further, Packing is a "Heritage Resource" and campsites are a major component of the activity.

**Response:** See response to other trail specific comments for Public Concern #169.

**Public Concern #179:** System and Use Trails to Lee Lake and Cecil Lake from McGee Pass Trail should be maintained and open to stock.

**Comment:** I-133, Trail 2810, Lee Creek - Check McGee Creek Pack Station files - trail was wheeled by Diana Pietrasanta in 2002. The system trail (1988 inventory) is Level 2, 1.5 miles. This takes the trail to Cecil Lake. The 2001 Appendix C, shortened the trail to .8 mi (although inappropriate action). Even so, .8 mi takes the trail just past Lee Lake. This table lists the trail to "Sheep Camp" as .4. This is incorrect. Sheep Camp is .1 from the McGee Pass trail Junction. This is an error. The trail should remain at Level 2 to Lee Lake.

**Comment:** I-134, Trail 2810 - this is part of the same trail above. Should be maintained at the same level to NE Lee Lake. This entire trail is of historical significance and has potential to be listed as a Heritage Resources designation.

In Trail Suitability Table - Lee Creek trail above Sheep Camp is closed to Commercial Pack Stock in all alternatives. DISCRIMINATORY! It is open to private stock. Yet the 'trail' to Hortense - admittedly a non-system trail is available for use. The trail does not even exist - yet a system trail to Lee Lake is closed. FIX THE TRAIL, don't close it. Further, in Chapter 4, page IV341, the Agency admits no use will not improve the resource concerns. In addition, the concerns will continue to multiply unless restorative work is done. The restorative work would include the same requirements to re-store and repair the trail. In addition, due to what appears to be pre-planned, pre-determined outcome of the CEA-EIS - the Forest missed an opportunity to repair these concerns during Fish Creek Watershed project where a trail crew did work for 2 summers in the area in 2002 and 2003.

**Comment:** UT109 - Cecil Lake - trail should be allowed for grazing, historical access. Campsites

**Response:** Trail and resource concerns in the trail corridor to Lee Lake are some of the most severe in the planning area. While it is true (as with other trails in the planning area) that the resource impacts will not naturally recover without active physical management, removing recurring stock use from this area will likely slow the rate of further degradation. When physical repairs are made, their chance of success will be increased without recurring equestrian traffic.

## Camping

**Public Concern #180:** On page II-35 - why is it written: "Designate 2 stock camps at Horse Heaven - 1 site only"?



**Response:** This editorial error has been corrected in the Final EIS.

**Public Concern #181:** *Designated Camps: after much thought, we disagree with this practice. It will provide opportunity for the anti-stock, anti-commercial advocates to pinpoint our use, and will not allow the flexibility required to serve the public.*

**Response:** Designated camps are an important part of the Destination Management Strategy which allows the agency to pinpoint resource concerns and remedy any resource-related problems related to commercial pack stock. See also responses to Public Concerns #106 and #172.

**Public Concern #182:** *Limiting groups camping at Cloverleaf Lake to only 8 head of livestock is effectively no more than a spot trip of 3. This is discriminatory. The only consideration here is the trail, the public should not be denied a normal experience due to the Forest Service's lack of quality trail maintenance. This regulation should be temporary at most, with a 'sunset' date of 2 years allowing time for the trail work to repair the short section of trail. This work needs to be done as currently there is no reasonable system trail access to a lake which is shown on the inventory as having a system trail. This is misappropriation of funds - if the Forest submits a certain number of miles of system trail for funding purposes, the lack of maintenance on those trails should not be used as means to discriminate against the recreating public.*

**Response:** Due to the geographical nature of the Convict drainage and the carry capacity of the Cloverleaf area, eight head of a stock at one time was determined to be the appropriate stock size for the conditions.

## Rainbow Pack Outfitters

**Public Concern #183:** *In forest decisions that were both arbitrary and capricious, the number of head we were authorized to have in the barn went from 80 head to 40 head, upon the purchase of our outfit in 2000. Also, the service day numbers for our outfit went from 800 down to 400 service days per season. The grazing allotment that had historically belonged to Rainbow Pack Outfit was put on hold, citing resource concerns and the need for further analysis, which is yet to be done six years later. These are the kinds of slow and inefficient management technique that hurt our historical businesses. Lakes that had been historically used by Rainbow Pack Outfit and were named by the packers that discovered them have been closed off to use. Access to lakes like Marie Louise, Margaret Lakes, Tyee Lakes, Ruwau, Chocolate Lakes, and Ledge Lake, has been taken away from us. The proposed trail closures that take the access away to these lakes means a 33% decrease in the destinations in our basin where we can take the public. Without documented resource concerns, it is wrong to take away historic use by the trail management proposals, that are discussed in the DEIS (response # 279)*

**Response:** Decisions made at the time of pack station purchase are outside the scope of this analysis. The permit holder has been notified since purchase of the pack station in 2000 that use of pastures would be analyzed during pack station term permit reissuance; and, the use of these pastures is being analyzed the subsequent EIS and therefore outside the scope of this analysis. In terms of the areas closed to commercial pack stock (e.g., Marie Louise Lake), there are documented resource concerns within the planning record.

## Sequoia Kings Pack Trains

All comments from response #311

**Public Concern #184:** *There is an error on page ES-10 – the operation is referred to as Sequoia Kings Pack Trips.*

**Response:** Comment noted; correction made in the FEIS.

**Public Concern #185:** *The DEIS proposes to reduce the ability of the operation to serve 800 people to 212.*

**Response:** Respondent is referring to use allocations prior to the 2001 Wilderness Plan. The Wilderness Plan set allocations based on packer provided use reports, as policy directs. This current allocation is described in Alternative 1. The DEIS provided a range of alternatives to address levels of use. Alternatives 2 and 3 as proposed do allow for additional use. Use levels in the selected alternative reflect discussions and input from Sequoia Kings National Park.

## Wilderness

**Public Concern #186:** *The public needs to accept that there will be some areas in designated wilderness that are simply going to be more heavily impacted and thus perhaps need to be more heavily regulated – than other areas dues to their popularity, ease of access etc... Examples of such areas include Thousand Island Lake and Little Lakes Valley. Use should not be shut off to commercial pack stock in these areas, but measures can and should be taken to assure that such areas aren't further degraded by wilderness users. (response # 216)*

**Response:** Alternatives 1, 2, 3 and 4 all continue use to the areas mentioned and standards and guidelines proposed in each alternative represent measures to assure no further degradation and remedy of unacceptable impacts.

**Public Concern #187:** *Commercial use should follow strict use restrictions as it is a non-conforming use of wilderness and could be accommodate in non-wilderness areas. (response # 170)*

**Response:** Commercial outfitter and guide services are not non-conforming uses, they are allowed by the Act to the “extent necessary” for meeting the purposes of the Act. The stated Purpose and Need of this environmental analysis is to assess the need for commercial service and manage this need so as to preserve the wilderness character.

**Public Concern #188:** *There is a discrepancy between the figure on page III-14 that suggests the number of people visiting the wildernesses is increasing at a rate of approximately 500 people per year and the data from the last four years that shows the number of visitors have stabilized or may be decreasing. (response # 248)*

**Response:** The Table on page III-14 is for the Sierra National Forest only. The table does show that on the Sierra NF overall trend from 1996 to the present is upward, but that over just the last four years the trend is downward. The FEIS presents a revised chart for the Sierra NF that incorporates a longer timeframe that shows an overall downward trend from 1991.

**Public Concern #189:** *Stock supported wilderness travel does not contribute to high quality wilderness experience. In fact, livestock seriously interfere with human use and enjoyment of the wilderness, the objective of seeking primitive and unconfined experience and opportunities for solitude certainly is not furthered by the presence of livestock. Solitude is foregone by parties that travel with stock. (response # 392)*

**Response:** Some visitors hold this opinion. Other visitors are achieving their wilderness experience on recreational stock, which is a form of transportation that is consistent with wilderness purposes. Conflicts in values, experiences and perceptions are a significant factor and are considered in the effects to wilderness character portion of this analysis ( see the Environmental Consequences for Wilderness in Chapter 4).

**Public Concern #190:** *The DEIS improperly relies on claims by the commercial outfits that they spread the minimum-impact message. The DEIS implies that wilderness character would suffer if commercial pack stock enterprises were reduced, because the commercial packers effectively educate wilderness visitors about proper wilderness behavior, and that the positive impacts of the packers message is greater than their impacts. There is no basis in fact for this claim, and it is, frankly, ridiculous.*

*The Forest Service should refrain from repeating anecdotal statements by commercial packers that they provide wilderness ethics education, unless they can provide evidence to support this claim. The available evidence indicates that the commercial packers do not provide effective low-impact education to their clients or others. (response # 196)*

**Response:** The analysis has been reviewed and statements that are believed to be anecdotal and not properly referenced have been removed.

## Wilderness, Social Considerations

**Public Concern #191:** *The DEIS does not include a discussion of the effects of commercial pack stock-related manure and urine on other user groups.*

**Comment:** *There is no discussion in the DEIS of the impact of large quantities of manure on the hiking experience. (response #241)*

**Comment:** *Impacts from pack animals, including urine and feces on the trail has made recreating in the wilderness unpleasant for other users. (response # 178)*

**Response:** This experiential component has been considered and addressed in the Wilderness section of Chapters 3 and 4 of the Final EIS.

## Wilderness, Comments on Chapter 3

**All comments are from response # 198**

**Public Concern #192:** *On page 111-76 there is a correction. Historically, McGee Creek Pack Station did the necessary packing for the Federal Fish and Wildlife Service who were studying fish in upper Convict Lakes Basin for a number of years. The canyon trail along Convict Creek was used. In 1953 and 54, that trail was in good shape. McGee also took some private pack trips to the lakes that Convict could not handle. Convict was mostly conducting day trips then. The Summers Mammoth Pack Outfit used the Laurel Pass trail beginning in the early part of the century or before. The Summers ran cattle up into the Laurel Meadows and owned some mining claims up there. When the Roesers bought Mammoth Lakes Pack Outfit, we used the Laurel Pass Trail to the upper basin beginning in the early 1960's.*

**Response:** This information has been added to Chapter 3, "Wilderness –Fish Creek-Convict-McGee"



**Public Concern #193:** *More corrections on page 111-78. The DEIS mixes up two of the lakes, Papoose and Squaw, in the Lakes of the Lone Indian basin. This is understandable since some old commercial map first made the error and then other maps followed suit. Papoose Lake is the lake on the John Muir Trail. Squaw Lake is the lake to the east and adjacent to Lake of the Lone Indian. That is the correct designation from the Forest Service trail crew who were working on the Silver Pass Trail in the summer of 1949. The switching of the 2 lakes occurs throughout the document.*

**Response:** We will note the historical names for these lakes; however, since every map and guide for at least 35 years has shown it the same as named in the DEIS we feel it would be confusing and outside our jurisdiction to change these place names back to their 1949 names.

**Public Concern #194:** *There is incorrect information contained in the Wilderness section of Chapter 3. (All comments are from response #275)*

**Comment:** *The assessment of the affected environment makes no attempt to assess whether the impacts that the FS calls "high, noticeable & bad" are from people or stock. The camping impacts are generally the effects of people and not stock. And, there is little to no determination of non-commercial to commercial use.*

**Response:** It is not possible to determine if impacts were caused by private stock, commercial stock and in some case from hikers instead of stock. There are some impacts that are clearly related to stock (i.e., roots exposed at tree wells in areas void of vegetation and apparently used for high lines, at or adjacent to campsites). The analysis clearly states that the purpose was not to determine cause of impact, but to record the conditions where pack stock have identified their operation and determine what, if any, management actions are needed to continue this use. Where pack stations identified their campsites, trails grazing, we assessed the condition and proposed actions for managing into the future.

**Comment:** *Page III-76: The Forest Service makes the comment that D&F conducts few full service trips over Goodale. In the last ten years there has been significant use. And, most of the trips went to Grassy Lake and the stock remained for the duration of the trip.*

**Response:** Refer to Appendix B, Table 1 in the Draft EIS to see that recent use by D & F Pack Station has not been significant in the area accessed over Goodale Pass. Refer to the destination quota table in DEIS, page II-20. The quota for D&F reflects their use over the last 4 years. Use data does not reflect this statement. Use by D&F has been light.

**Comment:** *Page III-76: The writer says Rock Creek's use was limited by resource concerns. The major concern was over competition for customers.*

**Response:** The limitation on use by Rock Creek Pack Station was indeed based on resource impacts resulting from all expense traveling trips. The concern was not over competition for customers, but an overuse by all outfits of the area. Authorized officers at the time specified an amount of use by Rock Creek in response to primary operator concerns.

**Comment:** *Page III-76: Grazing numbers of stock for 2001- 2003 wrong. Missing data.*

**Response:** We have reviewed and updated our files regarding grazing data.

**Comment:** *Page III-77 The Forest Service says impacts are high relative to use levels occurring. What impacts and compared to what? Perhaps the Forest Service is lacking use data*

*and the impacts are low compared to the use. Also, other private stock users and hikers are using campsites that cause impact.*

**Response:** See pages 6-7 and 12 for a discussion of the methodology for categorizing use levels and impacts.

**Comment:** *Page III-78: The Forest Service does not indicate that the camps in Cascade Valley show heavy impact. The heaviest used campsites of the 1980's barely show any use. It proves that large numbers of people, with large numbers of stock can result in campsites that are fine.*

*They make note of a highly disturbed Third Crossing campsite. This has been a relatively small used campsite compared to others in the region.*

*In summary, the description of the campsites of the 2nd Crossing to Island Crossing is totally lacking in being comprehensive.*

*This analysis of the affected environment does not disclose the number of campsites, who used them historically and why they don't show recent use. Lacking is the historical record of use. Unfortunately, the writers of the plan look at one year or perhaps a few years of use.*

*It is interesting that in Court documents, the plaintiffs use wilderness ranger's comments indicating the harm to the wilderness when up to 75 animals per night were grazing in Cascade Valley per night up to 3 nights a week. Contrast that to the occasional trip of 20 that frequents the area the last few years.*

*This Cumulative Effects analysis of this area is poorly written and does not allow that average reader a good understanding of the historical and current use patterns. Neither does it adequately present an analysis of what things look like on the ground.*

**Response:** Comment noted and appropriate changes are made in the Final EIS.

**Comment:** *III-89: False Statements: "Conflicts with Rock Creek"? We never have had a conflict with High Sierra Pack Station in Mono Creek over grazing, use, packers, etc.*

**Response:** In a personal communication, the "conflict" was identified by High Sierra Pack Station as an explanation why they do not do as many trips into Pioneer Basin. Another way to present it is that some operators have chosen not to be in conflict with other packers by not going to certain areas. This situation was what was meant by "conflict."

**Comment:** *Grazing data for 2001 missing.*

**Response:** Updated grazing data has been included in the FEIS.

**Comment:** *III-89: False Statements: FS implies extensive use trails is because of travel between stock camps. The trails have been in use since the 1930's. Not use trails.*

*III-89, 2nd to last paragraph: The Forest Service is wrong. These are not use trails but trails in continuous use since the 1920's for travel between campsites and locations at Davis and Lake #2.*

*The trail from Mudd Lake to Third Recess is a trail and not a use trail.*

**Response:** "Use trail" describes a trail that is not on the System. See definition of use trail in the Glossary. Trails to campsites, although they have been used, some for many years, are still considered use trails.

**Comment:** *III-89: False Statements: Solitude is high in July in Hilton Lakes*

**Response:** Solitude is subjective. The concept was used to provide a consistent means to describe a quality of Wilderness that is used to define Wilderness in the Wilderness Act. Certainly, a person may go to Hilton in July and see no one. But because Hilton is used regularly and frequently by commercial pack stations in July, as it offers good early season access, the opportunities for solitude are lower.

**Comment:** *pp. 89-90: The Forest Service gives one paragraph about day use of 100-150 hikers per day. And, doesn't comment that this is bad, wrecks the social experience, causes high number of use trails, causes water pollution, etc. Totally inadequate EIS when you don't divulge the environmental effects of use.*

*This EIS should put the commercial pack stock use in perspective with others use in the wilderness. The plan states there is a lack of solitude in Hilton Lakes and then follows with the statement of high day use in Little Lakes Valley. The DEIS doesn't state that there is no solitude in Little Lakes Valley in spite of little commercial use. Shouldn't a good environmental document use numbers to compare and contrast use patterns?*

*And, for example the wilderness alongside of the Mt. Whitney Trail should be used as an example of what the wilderness looks like without horses and mules. It shows that people are as much or more of a resource problem than commercial livestock.*

**Response:** The FEIS does include considerable more attention to day use and where relevant is brought into the cumulative effects discussion for the area. Because Mt. Whitney is not an area used by commercial stock, it is not a focus of the analysis.

**Comment:** *III-90 Untrue statements! Use trails aren't proliferating. The Forest Service is using maps that don't reflect the actual layout of the land, don't know the numbers of the lack and have little knowledge of the trails and use patterns.*

*Last year I provided maps and information to the Forests about the problems and sent return receipt letters to the Sierra National Forest---two times and they refused to correct their mistakes or acknowledge constructive help on identifying proper camps, names and locations of lakes and trails.*

**Response:** The Forest Service utilized USGS maps which are the standards for resource management. The map provided by the respondent was a 1950s fishing map. We did not consider this map to be the definitive map of place names and locations for these two wildernesses and stand by the use of USGS 7.5 minute quads as the official map. Naming of camps in the DEIS tried to follow what we knew to be commonly used names by packers, however because of confusion, we have created a new naming convention for campsites to eliminate the confusion of perhaps different names that different packers give the same site.

**Comment:** *III-90 Use trails in Pioneer are getting more faint and less notable.*

**Response:** The appearance of trails being fainter rather than heavier very well may be true by some people's perceptions. The issue the Forest Service is attempting to deal with is the resource concerns associated with the trail, which even though fainter, may still be considered a concern that must be managed. The data does show that Pioneer Basin has a high density of trails (mostly "use trails") many of which have severe resource concerns. It is true that many trails that were identified by the packers were not visible. These were not considered in the condition described



as a high density of use trails, since they appeared to be cross-country routes not trails. Possibly these could have at one time been more visible and the condition has improved, but nonetheless less the use trails that do exist have notable concerns that this analysis addresses.

**Comment:** III-90: *Use in Hopkins Lake is not concentrated at Lake for commercial use. We have had one or less trips per year to lake. Absolute lie of describing campsite that we use. This is a backpacker and perhaps an occasional private stock user has used. Absolute lie and the impacts are not from Rock Creek Pack Station's stock camps.*

**Response:** Rock Creek Pack Station identified seven campsites in the vicinity of Hopkins Lake during the time we requested information on all pack station operations for the purposes of this study (Forest Service files). In addition there are numerous entries on Rock Creek Pack Station's tally sheets for "Lower Hopkins" and "Hopkins Lake."

**Comment:** III-91: *Second Recess. We use it all the time. Stock travel is not difficult other than the creek crossing. Forest Service wilderness managers purposely don't fix so that it is treacherous to cross.*

**Response:** Reported recent use records show no overnight use to Second Recess for spot, dunnage or grazing. The field reports indicated that the trail has not been maintained and are terribly difficult for stock passage and showed no use. If a packer had used it in the past five years they most likely would have cleared the trail. By Forest Service accounts, it is not the crossing of Mono Creek but the lack of maintenance on the trail that makes it difficult for stock.

**Comment:** III 91: *Third Paragraph. We use Second Recess and take stock up the canyon. The fact that the Forest Service can't see evidence of stock use could mean several things:*

*a. They didn't get up Second Recess ( stream flow was high when id team was looking at Mono Creek)...*

*b. The id team got lost and didn't use the trail that I have personally used since 1957 when I was three years old.*

*c. The Forest Service fails to acknowledge that when you put picket lines in good locations and move them that you can't find the use.*

**Response:** See response above related to Second Recess. A Forest Service pack string did go up Second Recess and was able to follow the trail and make the crossing.

**Comment:** III-100: *It says that "the field evaluation was aborted because of high creek flows in Mono Creek inhibiting the crew's ability to cross into Second Recess. This EIS should divulge all the sections that are impacted by the field evaluation impacted by high rain.*

**Response:** The interdisciplinary team had initially planned to travel up into Second Recess and camp. It was determined to be not safe for foot travel to cross the stream due to high water. Instead, the pack string and pack stock specialist from the team traveled there, took photos and looked for some of the key pieces of information as best as they were able. It should be pointed out that there are many sources of information other than the field visit by the interdisciplinary team. It was not possible (due to time and budget) nor was it the goal for the ID team to go absolutely everywhere identified by pack stock operators. Nor was it possible to do anything more than an extensive assessment. Additional source of information came from Sierra National Forest Staff who have years of observations as well. The Forest Service feels there is adequate information to make this decision.

**Comment:** *III-134 Rock Creek and Mt. Whitney Pack Trails graze Sawmill Meadow. We use the Cottonwood and South Fork grazing areas on trips.*

**Response:** The statement in the DEIS was that Pine Creek Pack Station was the only reported grazing use in Sawmill Meadow. Our records show this to be a true statement.

**Comment:** *III-135. The Forest Service fails to mention that they burned the corrals and refuse to replace them or allow us to have overnight stock holding facilities. This has reduced commercial use. And, the Forest Service purposely doesn't allow or maintain the road to Taboose.*

**Response:** The Forest Service did not intentionally burn the corrals, the corrals burned during a wildfire in the area.

**Comment:** *III-135. There is no Baxter Trail Use by commercial stock because Garry Oye refused the two requests that we made by families to use the area. As one client was told by a senior Forest Service staff member... "we never intended or ever intend to allow commercial stock use on Baxter Trail".*

**Response:** Comment noted.

**Comment:** *Kearsarge Pass: The Forest Service fails to adequately explain why there is commercial stock use. It is for the most part because of restraint of trade provisions by the Forest Service and the Packers Association.*

*There is heavy demand for use at Kearsarge Pass. If Mt. Whitney Pack Trains was allowed to use Kearsarge Pass or chose to do so....there would be a lot more trips that originated at Kearsarge and exited at Taboose, Sawmill and Shepherd Passes. There is incredible public demand for stock supported trips.*

**Response:** Commercial stock use was considered and evaluated for all areas needed by the public in the 2001 Wilderness Plan and again in the FEIS. Many areas, particularly trail-less areas and very difficult and remote trails were restricted for commercial operators because of the potential for resource damage. Not all areas that commercial pack stock clients need access to were approved for commercial use.

**Comment:** *The exit quota situation at Trail Crest needs to be addressed in this document. There is an incredible demand that the Forest Service is denying to pack stock operators.*

**Response:** Refer to public comment # 175 response.

**Comment:** *There is a totally inadequate description of why, where and when there is commercial stock use into Sequoia National Park.*

**Response:** A discussion of use into Sequoia and Kings Canyon National Park was in the Draft EIS (Chapter 3, Section 3.2.1.1 John Muir Southeast). In addition, as the proposed actions affect use or impact into the Park, it is discussed in the cumulative effects section, specifically at the geographic scale, in John Muir Southeast and Florence/Bear, where this use from the forest into the park occurs.

## Wilderness, Comments on Chapter 4

**Public Concern #195:** *There is incorrect information contained in the Wilderness section of Chapter 4. (All comments are from response #275)*

**Comment:** *Page IV-14: Wilderness Scale: Party Size: I am not sure you can say there has been a trend toward more dunnage trips. Where is the data? Where is the statistical data?*

*The whole paragraph doesn't make sense and I believe does a poor job of looking at party size.*

*There are often smaller numbers of people in a commercial dunnage trip. That is because the cost is getting so expensive that the person requiring the service gets his or her dunnage packed in and then the rest of the group gets a general reservation permit.*

*Maximum party size is reached by Rock Creek many times. The comment is made that maximum party size is rarely reached. Reducing group size and changing grazing regulations has done more to cause an increase in stock per person than the assessment of the analysis made in IV-16*

**Response:** The party size discussion has been subject of disagreement from both sides of the argument. The analysis was modified to try and include suggested elements brought out through all comments on the issue. There is very little direct research on party size and no research is going to determine a "proper" party size. The Record of Decision indicates the decision makers feel the level of analysis was adequate for the decision to be made.

**Comment:** *Page IV-16: Wrong to talk about unintended consequences saying that the number of stock used has increased. The Forest Service should be saying that there is an incentive to get more money per service day. There is not an incentive to use more stock because stock costs a lot of money to maintain.*

*"Recently with the court ordered reduction in service days, the number of stock used has increased." Absolute Lie. In the data you present there is a reduction in stock from over 8000 in 2000 and 2001 to 7004 in 2004.*

*You state that there was an incentive to service less people for a shorter period of time. Where does it show this in figure 4.2.2 and 4.1.3?*

*The Forest Service does not adequately know how to analyze the data. In many cases, there is more stock used since the party size has been reduced to twelve people. That means that instead of having one group of 12 guests, 3 crew and 10 head of stock...you will have a group of 8 guests plus three crew and then another trip of four guests plus two crew and a total of about 17 head of stock.*

**Response:** Relative to the allocation and the actual use of service days, the data does indicate that more stock was used to service fewer people. This is what Figures 4.2.1 and 4.2.3 indicate in the DEIS. If one looks at the use of service days in 2001 compared to the number of stock and compare to that proportion in 2003 or 2004, you see the point—there was 44% less service days used and yet only 16% less stock. The analysis does not try to interpret the relationship between party size and stock, merely service days and stock. The Forest Service does not allow a party to be split into two as described above to avoid the party size limitations. If this happened or is found to occur, it is considered a violation of the intent if not the letter of the regulation.

**Comment:** *No statistics are used in IV-17 and even if you believe there is a trend (I don't)...the difference in numbers isn't going to affect the environment. If you look at their three year analysis we are saying that we would use 142 head of stock to service 100 people in one year and 147 head of stock to service 100 people on another year. However, before the new regulations took place in 2000 we would have use 145 head of stock per 100 people.*



*And, the data provided the participants in the Programmatic notes set out in July 2004 use different numbers of people, service days and stock than in the plan. The Inyo Packer Use for 2001 was 6141 people/8541 stock and 2002 E of people 4735 and 6404 #stock, 2003 the # of people 5290 and # of stock 7575. If you use these number you will get .71, .73 and .63 ratio of people per stock. This is a different set of numbers included in the DEIS. (these numbers would be used on page III-5 and for III-6.*

**Response:** The analysis in Chapter 3 and 4 has specifically accounted for the use of stock for two-way spot and dunnage. A calculation was not done in the figures used in the “programmatic agreement notes.” The calculations were done to more accurately assess the use of stock, as ordered by the court. Previous reporting of stock has only calculated the number of stock once even though the stock was used twice, to service in and to return on a later date and bring the party out. This analysis was done from 2001-2004 for the FEIS. And 2001 is the baseline of use prior to all the changes from the Wilderness Plan and the court order. It provides a useful comparison. As stated in other responses, data prior to 2001 is incomplete, rendering a comparison impossible. In your contact with the Inyo National Forest, it was not clear what report you were referring to. Often resolving the differences cannot be done off the top of someone’s head, but requires adequate information and consideration.

**Comment:** *The EIS should be addressing important information:*

- 1. Did the stock stay overnight?*
- 2. What percentage of stock was tied to a picket line or allowed to roam free?*
- 3. Was the stock used both ways? For example, if a mule takes a load of gear for one group and brings out another person’s dunnage is the stock counted twice even though it didn’t make two trips down the trail?*
- 4. How much stock was used to haul feed vs. haul people’s gear?*
- 5. Is the stock that is used to haul feed counted the same way as the stock used to haul people’s gear?*

*If the Forest Service presented the data differently, one could possibly make informed conclusions about the effects of the 2001 Wilderness Plan and Court Directed relief.*

**Response:** Much of this suggested information is not feasible or practical to collect for all the operators and as noted in many responses, accurate data from pack stations has been difficult to attain. It would likely provide little additional information that is needed to make decisions regarding the resource impacts we are attempting to respond to.

**Comment:** *The Forest Service fails to divulge the effects of its elevational grazing closures to stock. In 2004 the Inyo called the year a normal year...probably one of the driest in many decades. It forced packers to relocate trips and pack feed. This increases the stock count on the trail for feed.*

*The DEIS isn’t looking at the impact per stock number. The Forest Service is looking at a few operators and improperly assuming that each packer wants to rent more livestock. Economically, it makes sense to charge more per animal than less. The data doesn’t support the conclusions.*

**Response:** Delaying grazing until forage and soil conditions reach “range readiness” is a Forest LRMP Standard. Appendix G of the JM/AA Wilderness Plan re-states this direction, and

identifies that range readiness will be determined for pack stock use following the guidance in the Forest Service Range Management handbook (2209.21). The Record of Decision for the AA, JM and DL Wildernesses FEIS identified the issuance of Forest Orders as the tool for implementing range readiness standards, and the Wilderness Plan for the AA, JM and DL Wilderness Areas states that these Forest Orders may be revised annually, if necessary, to established grazing start dates. The CEA/EIS does not propose a change in this direction, and therefore the effects of delaying grazing until range readiness standards are met are not evaluated as part of this document.

Predictions of range readiness dates are made annually prior to the start of the pack stock grazing season, based on percent of normal snowpack. This prediction is used as a basis for the establishment of grazing start dates incorporated into the Forest Orders implementing grazing closures. The elevational closures are intended to reduce the impact of packing feed on packstock users by allowing grazing in lower elevations while waiting for range readiness in the higher elevations of the Wilderness areas. The desire to utilize packstock in areas prior to meeting range readiness conditions may necessitate the packing in of feed, and this increase of stock on trails is an effect that is described in Chapter 4.

**Comment:** *In IV-18 there is the statement that there is no incentive to use less stock. I strongly disagree that there is an incentive to use more stock.*

**Response:** The statement was that the court order (reduced service days) “seemed to be an incentive to use more stock.” This is supported by the tally sheet data. Some packers have indicated that this is in fact the response to the reduced service days. There have been implemented a minimum stock number for services by some outfits as example. Perhaps not all outfits responded this way, but there is supporting evidence that this does appear to be the case.

**Comment:** *The EIS is flawed in that it assumes that with daily and seasonal stock quotas there will be an increase in the number of clients. And, then furthermore it states that it is the number of stock and not the number of clients that affect the resource. This document does not assess what the impact on the resource will be by encouraging more clients.*

**Response:** The EIS does not so much assume there will be an increase in clients but attempts to provide the incentive—in Alternative 3—to serve more people without using more stock. The focus of the courts issues were on stock impacts, and research does indicate that stock has more impacts (albeit different) than hikers. There are impacts with people and more people, and the FEIS attempts to provide more discussion of these impacts.

**Comment:** *On page IV-19 the Forest Service gets into operating areas. Instead of assessing the cumulative effects on the resource of having various outfitters and members of the public utilize overlapping areas...the Forest Service proposes to eliminate overlapping commercial stock use. This is wrong. Instead of doing a proper environmental analysis the Forest Service makes the decision to eliminate overlapping use. And, the Forest Service wrongly assesses the impact of this decision on the resource.*

*Furthermore, they lie that packers are doing more traveling trips into areas where they had not historically operated.*

**Response:** There is no reference to this comment and such a statement could not be located in document. Since there is no significant assessment or attempt to assess “historic use” this may be taken out of context.

**Comment:** *How can the Forest Service say that assigning primary operating areas to those operators at a base facility will result in less impact to the Forest Service? First, the Forest Service needs to look at the environment and assess what are the affects of multiple operators using camps and drainage areas. Secondly, there is NEPA requirement to look at various alternatives and divulge reasonable environmental consequences.*

**Response:** The analysis does not state there will be less impact to the Forest Service, but it does help the Forest Service manage overlapping uses better. The analysis has determined that in at least one of the areas where there are many operators—Silver Divide—the impacts are more severe. Many of the operators have indicated that it has been a source of the problem.

**Comment:** *Chapter IV-21 states that the wilderness character will be improved. Unfortunately, it doesn't state that it removes the ability of the public to move through the wilderness with freedom. The Wilderness Act was established to allow the public to use their wilderness and not deal with all the regulations and restrictions suggested in Alternative #2.*

**Response:** In the same section (IV-20) the statement is made “Packers’ freedom of movement and camping will be substantially limited by the alternative.” The analysis does recognize this element of wilderness character that is being affected by more direct controls. The FEIS will clarify that not only packers, but clients of packers are limited, as that was intended but not well stated in the DEIS.

**Comment:** *Chapter IV-page 26 has a discussion of party size. Again, the Forest Service misses the opportunity to look at the impact of party size on the wilderness resource. The Wilderness Act specifically wanted historical use of livestock to support traveling trips such as the Sierra Club Hiking and Riding trips in the Sierra.*

*If 25 people want to travel the length of the Muir Trail there will be less impact if we send one group of 25 with 20 head of stock than three groups of ten people with 45 head of stock.*

*Every time the Forest Service cuts party size, it requires more stock and packers to service less people. The stock per client and service day ratio climbs. If we want to have less stock per person or service day we need to increase the party size.*

*Smaller party size creates more traveling trips down the John Muir Trail. We used to be able to take 20 people with five crew on trips from Rock Creek to Mammoth. Now it would take three trips to get the same number of guests down the trail. As a result, there is a lot more use by fewer people.*

**Response:** The commenter clearly believes that larger group size will have fewer impacts. This opinion will be noted in the analysis, and further discussion on the disagreement on this issue from various respondents will be provided.

**Comment:** *56a. Failure to evaluate the effects of trail head quotas and group size on the environment.*

**Response:** Substantial analysis of the effects of trailhead quotas and group size is provided in the “Wilderness” section for each alternative. Although it may not reflect every individuals opinion on these matters, there is not a failure to evaluate it.

**Comment:** *Page IV-244. It is good that you mention that Alternative 2 reduces Rock Creek Pack Stations ability to use this Ansel Adams Area. This will eliminate most of the opportunity for the general public to take a packer assisted pack trip the length of the John Muir Trail; this*



*should be clearly stated. Why should you allow non-historical day use to increase and eliminate historical use of commercial pack stock that travel along the John Muir Trail?*

**Response:** Many opportunities still exist for the public to take a packer assisted trip the length of the John Muir Trail. Some of this use is also regulated by Yosemite National Park, a terminus for the John Muir trail. Alternatives provide different levels of use that are determined to be appropriate and necessary in meeting the purposes of Wilderness Act and preserving wilderness character.

**Comment:** *I am not clear what is meant by the last paragraph of Chapter IV-247 regarding not controlling use into the Park. This is the only example I find in this EIS where the Forest Service has altered its plan following last year's document about pack stock use. Does this mean that Rock Creek Pack Station will have no control to enter Yosemite? Or, is this a specific courtesy granted to Frontier Pack Station?*

**Response:** The discussion on page IV-247 is in regards to the effects analysis for Alternative 3.

Alternative 3 only controls use at trailheads, not by the direct methods of the Proposed Action where destination quotas specifically limited the number of trips into the Park. No, this does not mean that Rock Creek's use will be eliminated, in fact the next sentence states "It is likely that unless Yosemite National Park was to control the use over the boundary, there would be a possibility that more use could be along this corridor" (IV-248).

**Comment:** *Chapter IV-337. Fourth paragraph says that crowding will only be high in Cascade Valley and Iva Belle. Where is the crowding in Cascade Valley? Look at the use levels for the last 25 years. You can't find the campsites hardly in Cascade.*

**Responses:** There were two campsites in Cascade Valley identified in this discussion, one at Third Crossing and one at Second Crossing. Although conditions may have improved in the last fifty years, these sites continue to see impacts and are as the statement says "noticeable."

**Comment:** *You say trailhead quotas are not limiting use. False. You have no destination quotas in the existing management plan. There was never any intent to reduce use in Cascade Valley. Why would you reduce use in Cascade Valley when the use levels continues to decrease?*

**Response:** The statement is the trailhead quotas are currently not limiting use. Commercial pack stock use could, under current management continue to grow." This is merely stating the effects of current trailhead quotas, where commercial pack stations are not to any significant degree being limited by the daily quotas and the use continues at a similar level as it did prior to the Wilderness Plan.

**Comment:** *Chapter IV-337. Document is flawed in that there is a grazing plan and the only problem is that the Forest Service didn't enforce the plan. And, the Forest Service has allowed growth by numerous people. This is a poor analysis of Alternative 1. The Forest Service is currently obligated to work with packers on an operating plan. Under Alternative 1, the Forest Service is supposed to manage the wilderness correctly. Any adverse affect to commercial grazing, campsite use, etc may be managed with the operating plan. There is no need to put Alternative #2 in place to achieve management objectives.*

**Response:** It is true that the Forest Service uses the operating plan to address site-specific management issues not typically included in LRMPs. And, it is true that grazing management direction was developed in the 2001 Wilderness Plan. However, it was not until site-specific

data was collected in 2002-05, that range suitability and other site-specific grazing determinations could be decided. The 2005 FEIS incorporates the new data and analysis, and includes and evaluates minor adjustments to the grazing management direction in the different alternatives.

**Comment:** *A statement on IV 337 "There are few limits on grazing currently and management of grazing will likely respond reactively to impacts". This is the situation that has occurred in Cascade Valley, even recently, as Second Crossing was closed after impacts had been identified. Current direction has not fully been implemented and it will be noted that within this Alternative there could be responsive management.*

**Response:** see response to comment above

**Comment:** *Chapter IV-338 You state that you will cut Rock Creek's use by 46%. Where will these people go in the wilderness? If you are going to propose an alternative that reduces this much use you should identify what the effect is going to be in the wilderness. This EIS fails to give a reasonable alternative.*

**Response:** If the use is cut, the people will not be in the Wilderness. There will be fewer commercial clients and the effects of such are described.

**Comment:** *You state that you are going to increase Upper Fish Creek by ten trips and 9 trips to Cascade Valley and show a sizeable increase in spot and dunnage trips. Your analysis suggests that this will reduce impact. Yet, on page IV-339 you say that there will be 100 less stock using the unit by removing Rock Creek Pack Station's Use. However, you replace Rock Creek's use with 20-30 other trips without stock and service day units and say that there is less chance for stock use? What is going on? The implication is that you can increase 20 trips by McGee and Mammoth and reduce a couple of Rock Creek Trips and there will be less impact?*

**Response:** The reduction in full service stock supported trips will have a beneficial effect on grazing and campsites in the area. Spot and dunnage trips do not utilize these resources to the degree that full service trips do.

**Comment:** *Chapter 4 page 342. First paragraph is misleading. Historical use patterns have changed. However, the change is that there is little use from Red's Meadow compared to considerable use year ago. And, there weren't pack trips from June Lake. The increase in use is from June Lake.*

Rock Creek Pack Station has been trucking livestock to Red's Meadow, Mammoth Pass and occasional other trail heads since the 1940's. Rock Creek Pack Station has used Mammoth Pass as a trailhead since the 1970's and continues to service some of the same clients.

The Forest Service has permitted significant increases of Hilton Lakes by the packer at McGee Creek.

The Forest Service fails to mention that the problem is that the packer at Mammoth and Red's Meadow doesn't want competition. They want to eliminate traveling trips over Mono Pass. Then, they don't want anyone to truck to another trailhead. The real issue is one of restraint of trade and has very little to do with resource impact.

**Response:** This is not consistent with use data and other comments from packers using the area and demonstrates the various opinions and perceptions that exist on use levels and effects. The analysis attempts to not assign blame to individual operators. Over twenty years ago the Forest

Service limited Rock Creeks use from Rock Creek to Mammoth and Yosemite trips. This apparently is not a new issue. Over time the limitation either lacked enforcement or was forgotten. The actions of Alternative 2 very much mirror the actions that were in operating plans in the 1980s.

**Comment:** *There is so much less use than twenty years ago that this whole discussion of cumulative impacts is almost ridiculous. Our crews seldom see other livestock and there are few outfitted pack trips that we encounter in the Fish Creek and Jackson/Grassy Lake area.*

**Response:** See response above on perceptions of impacts. The court has required the Forest Service to do a cumulative impact analysis because of evidence of resource impacts. It is the Forest Service's responsibility to establish the record on the type and level of severity of resource impacts from commercial pack stock in these wildernesses. As difficult or ridiculous as the descriptions may seem to those with more tolerant views of impacts, it is nonetheless a requirement.

**Comment:** *This DEIS is so deceitful in creating a perception of overuse and conflict of overlapping commercial use in the wilderness. Unfortunately, there is a lack of thoughtful analysis and field work that backs up the conclusions suggested in the DEIS.*

**Response:** We disagree that a 500-page effects analysis that considers effects at a very localized levels for five alternatives could be considered lacking in thoughtfulness. It may not match the opinions of others.

**Comment:** *Why doesn't the EIS give a physical description of the camp and explain how many feet are taken by tents, picket line, paths, etc. Why not mention the actual number of camps in a particular area and the percentage used of camps. And, why not mention the duration of the use? An environmental analysis should focus on concrete physical analysis and quantitative data. It is lacking in much of the document.*

**Response:** This is a programmatic document that provides direction of site-specific management of campsites. There seemed little need to discuss the level of detail suggested in the comment above in a programmatic document. As it stands the level of detail is far more than is required of an environmental analysis at the programmatic level. Perhaps a false expectation had been created with some of the details. An environmental analysis needs to focus on the relevant issues and information for the decision to be made. We hope that the Final EIS provides adequate direction for annual operating plans to fulfill the goals and objectives laid forth.

**Comment:** *Grazing at Jackson Meadow and Grassy Lake Area: There needs to be a wide variety of campsites and grazing options that allow people to stay for more than one night. Most people go to a central area so that they can fish and explore this area's lakes.*

**Response:** Given the resource impacts in this area, it is a proposal in one of the alternatives to limit camping to a one-night stay. This is a fairly common tool to use in wildernesses in locations where conditions warrant a reduction in use, but not a total closure.

**Comment:** *Chapter IV-383: Whether or not you have designated stock camps there will be similar uses. Perhaps the Forest Service should maintain the trails. No appreciable maintenance since 1968 of almost all of the trail from Rock Creek to Hilton. Could that be the reason for deterioration of trail resources?*



**Response:** Substantial repair efforts were performed on much of the Hilton trails in 1980 and in the early 1990s. Basic maintenance is performed annually or as often as funding allows. It is likely that more maintenance will be required on trails in the Hilton Lakes area that continue to receive heavy commercial stock use. Some responsibility for assisting with trail maintenance lies with the commercial operators who primarily use the trail systems.

**Comment:** *Why allow multiple operators in Hilton and not in Cascade Valley or other regions of the wilderness?*

**Response:** Multiple operators are allowed in both Hilton and Cascade Valley. However, only one primary operator—for spot and dunnage trips—is allowed in Cascade Valley. In Alternatives 2 and 3, three primary operators are identified for Hilton primarily because there are multiple way of entering into Hilton, from the Rock Creek side and from the Hilton Creek side, and that three operators had been using these access points for a number of years, and two of the operators had very little use.

**Comment:** *IV-385. Lie that Pioneer Basin has seen a proliferation of use trails. Less use and many of the trails used in the past are not possible to see.*

**Response:** The statement has been modified in the Final EIS to reflect that there are a high number of use trails with resource concerns. It was noted as a cumulative effect of past use and present general public and commercial pack stock use. Observations from the public, Forest Service and other packers indicate that there has been a proliferation, which again points to a difference in perceptions.

**Comment:** *Chapter IV-391 The discussion of trails into Fourth Recess and Pioneer Basin is ludicrous. There are multiple trails into Fourth Recess to get to various camps...primarily for spot and dunnage trips.*

**Response:** The discussion on page IV-391 of the DEIS predicts the effects of fewer stock camps. It has been modified in the Final EIS to add that trails will persist to spot and dunnage sites, as this use will not be controlled.

**Comment:** *The comments about Pioneer Basin are incorrect. There are not excessive amount of trails in Pioneer Basin. The trails are all going someplace and allow someone to ride around the Basin in one day. By closing trails you will have people spending several days trying to get to various lakes. Therefore, by closing trails you will be causing a lot more impact.*

**Response:** It is highly unlikely that by closing some of the impacted trails to commercial stock use it would take the public several days to get to the lakes. For example, the distance from Mudd Lake (where commercial pack stock can travel to) to the upper most lake is approximately 2 miles. Perhaps there will be some people who will be excluded from some of the many lakes in the basin if they are unable to walk the distance, but it is not likely that most people will be excluded, nor would it require several days of walking.

**Comment:** *Chapter IV-480-485—Where is Orchid Lake's use described. Rock Creek pack station wants to go to Orchid. Need to mention the permanent camps and trails built in the 1950's and 1960's.*

**Response:** Orchid Lake's use is described in Chapter III in the Florence- Edison Geographic Unit. There currently is not a visible trail to Orchid. There is not recorded use in the past five years. Orchid Lake is mentioned in Arn Snyder's 1962 report where he proposed permanent type

camps at various locations, including Orchid, but there is no record that this was done at Orchid, nor is there any evidence of any heavy use from the past.

**Comment:** *Chapter IV-530 Limiting stock number to Taboose and Sawmill essentially prevent use by Mt. Whitney and Rock Creek Pack Station. The restrictions in Alternative 3 are awful and essentially close the use to stock.*

*There currently aren't resource problems from the trails and there is no reason to put more restrictions.*

**Response:** Page IV-53 of the DEIS describes Alternative 3 for Taboose and Sawmill. Both trails access Sequoia-Kings Canyon National Park and these numbers respond to both current use levels and the park's stated desire not to increase use on these trails into the Park. This analysis must consider use that is affecting adjacent lands administered by other agencies. We have worked closely with the park to insure that our actions are consistent with their management objectives.

**Comment:** *Chapter IV-531. You state that Cottonwood will be one operator. Mt. Whitney has been using the Basin since 1921 and this statement is wrong.*

**Response:** In Alternative 3 (IV-p.531 discussion) there will be one operator in Cottonwood Basin. It is not relevant to the discussion that there was historic use to the basin by a second operator. There are no current records for use by other operators, so no effect to a second operator was described.

## Trails, General

**Public Concern #196:** *The writers of this document refuse to research the files and extensive public historical collections of pictures, maps and journals that explain where, why and how these trails were built.*

**Response:** The scope of this project is to determine the management of commercial uses and trails of the planning area. Where, why and how trails were built while interesting, is not necessarily a relevant factor that needs to be considered in any detail. Where this information is relevant, it has been noted. The EIS is not intended to be an account of the history of all management and uses in these Wildernesses. References are noted and cited when applicable.

**Public Concern #197:** *Trails improved to stock standards have a greater effect on wilderness character, and are more costly to maintain than trails with little or no packstock use. (response # 301)*

**Response:** As disclosed in the DEIS, the somewhat higher profile of high-use stock trails may be seen as having a greater imprint of human influence on wilderness. Pack stock—both private and commercial—are acceptable uses of wilderness lands and trails, so most trails are maintained for such use. Private equestrians are allowed on all trails in the AA/JM wilderness, though some lesser-used trails are of a very limited scale, and have a relatively small profile.

**Public Concern #198:** *An alternative should have been analyzed that restricts commercial pack stock to certain trails, and to campsites within a limited distance (1/2 mile) from those trails. (response # 301)*

**Response:** Alternatives 2, 3 and 4 in the DEIS and the selected alternative in the FEIS restrict commercial operators to certain system and use trails which are determined suitable for commercial stock. They are also limited to traveling off-trail to less than ¼ mile to access camp sites.

**Public Concern #199:** *No alternative considered charging fees to maintain or repair trails. (response # 301)*

**Response:** This suggestion is outside the scope of this project.

**Public Concern #200:** *The Forest Service should limit pack stock to trails that were designed for that use.*

**Comment:** *Trails that have not been adequately located, designed, constructed, and maintained to fully withstand the heavy impacts of stock use should be closed to all commercial stock animals. As a starting point, all "Class 1" trails identified in Alternative 4 should be closed to commercial stock. (response #form letter C, form letter D, form letter E, form letter B, 65)*

**Comment:** *Trails such as Mono Pass, Taboose Pass, and Sawmill Pass should be completely closed to stock animals. It is clear that neither the Forest Service nor our country can afford to repair the destruction of constant pack animal use in the high country nor should we have to. (response # 178)*

**Comment:** *Commercial pack stock should not be allowed on trails in poor condition or subject to excessive degradation by the use of pack stock on them. (response #36, form letter B)*

**Response:** The 2001 Wilderness Plan allows private stock on all wilderness trails except Mt Whitney and Meysan Lakes, but does allow for certain trails to be closed to commercial pack stock. In the selected alternative, commercial stock is restricted from approximately 90 miles of trail in the AA/JM Wilderness, which were determined to have the greatest potential concern with recurring pack stock use. Another 9 miles of trail are temporarily closed until concerns can be mitigated. Other trails, which can only stably handle limited numbers of stock are allowed for commercial use, but use is restricted to sustainable levels through quotas and destination limitations. Use trails (non-system) have only been approved when it appears that anticipated uses will not lead to unacceptable resource effects.

**Public Concern #201:** *Trails that are frequently used by pack groups should be actively maintained throughout the peak months to minimize or eliminate the horrible and unpleasant dust problems for users. (response # 318)*

**Response:** While dusty trails are unpleasant, attempting to eliminate dust from stock and/or hiker trails is neither a practical action, nor within the scope of this analysis.

**Public Concern #202:** *Designate a network of hiker-only trails in the AA/JM Wilderness. (response # 345)*

**Response:** The 2001 Wilderness Plan specifically "...permits recreational pack stock and hiker use on all trails except Mt Whitney and Meysan Lake, which are closed to pack stock." (Record of Decision, pg. 4)



## Trails, Off-Trail Travel

**Public Concern #203:** *The Forest Service should not allow off-trail travel by commercial pack stock.*

**Comment:** *For travel off of designated trails (i.e., off-trail or across-country travel), we recommend the following group size limits as indicated by the latest research for the protection of wilderness resources and values: maximum eight persons per group, with no stock animals allowed off-trail, except for grazing at approved forage areas. The suggested limit of eight persons/group for off-trail travel would provide important protection for resources and visitors experience in little-used areas (see Cole 1989a, 1990, 1997), and would be consistent with limits in effect at the adjacent Yosemite National Park and Hoover Wilderness. In addition, given the high likelihood for significant impacts whenever stock animals leave designated and maintained trails, your final plan should also specify that off-trail travel by stock animals shall be allowed only on specific routes identified after careful site-specific NEPA analysis with full public involvement. (response # 196)*

**Comment:** *Scientists have long recommended that stock animals should stay on trails that have been designed, constructed and maintained to withstand the impacts of stock use. Commercial stock should be required to remain on designated trails, with no exceptions. No off-trail travel by commercial stock should be allowed. In Alternative 4, commercial pack stock use must stay on existing trails. Off trail travel must not be allowed, and any commercial pack stock travel must be restricted to designated maintained trails and identified grazing areas only. Allowing off-trail use will result in negative impacts of pack stock into areas where trails do not reach. (response #form letter B and D, 33, 35, 36, 153, 372)*

**Response:** In the selected alternative, commercial operators are limited to certain system trails and approved use trails. A small number of the "use trails" were relatively undeveloped and undefined "cross-country" routes. Generally these were approved for very limited numbers and during a specific season of use (i.e. "Hunting use only"), with the intent of maintaining the undefined character of these routes.

## Trails, Settlement Agreement

**Public Concern #204:** *The Forest Service should comply with the terms of the Settlement Agreement between the Backcountry Horsemen and the Forest Service. (response # 276, 278)*

**Response:** The April 2004 Settlement Agreement with the Backcountry Horsemen of California (BCHC) contained five key items. The first three ensured that the inventory in Appendix C of the Wilderness Plan would not be used to change the management of trails in the AA/JM Wildernesses, and that the forests would maintain trails to their "current assigned levels" to the best of their ability.

Item four states "Defendants will complete a Trail Transportation Plan pursuant to a public process, with the objective of completing it by December, 2006." Item 5 states: "In preparing the NEPA analysis for the Trail Transportation Plan, defendants will use the 1987-88 trail inventory as the "No-Action" alternative for the Inyo National Forest." The "no action" inventory for the Sierra NF was not addressed in the settlement, and no pre-2001 inventory for the Sierra was available.

No part of the agreement related to any other guidance in the 2001 Wilderness Plan, including the use of three Recreation Categories, which provide “desired conditions” for various areas in these wildernesses and which affect future development and maintenance of trails accessing these areas.

**Public Concern #205:** *The DEIS does not meet the intent of the Court Order requiring that the agency look at “trail suitability for various types of use.” (response # 276, 278)*

**Response:** Within the context of the Court Order, “trail suitability” is interpreted as relating to the suitability of commercial stock on Forest trails in the AA/JM Wilderness.

## Trails, Trail Management Plan

**Public Concern #206:** *Rather than reduce trail quality and trail miles, why don't you use volunteers and other community groups that would love to help maintain trails? (response # 180)*

**Response:** The Inyo and Sierra National Forests frequently utilize the volunteer efforts of many groups and individuals to maintain trails. These efforts have helped the forests to maintain trails and reduce resource impacts. In cases where Trail Class designations have been reduced in the Trail Plan, it is generally to meet the intent of the desired condition of a destination, and the anticipated use types and levels on a particular trail. The trail class defines the level of development and maintenance, whether the work will be accomplished by volunteers, permittees, or Forest staff.

**Public Concern #207:** *The Forest Service should not engage in destructive practices such as blasting to accommodate stock use of trails. (response # 221)*

**Response:** While certain maintenance activities, such as blasting may be seen as “destructive”, the goal of trail maintenance is to ensure that there is one stable route, passable to anticipated trail users—both pack stock and hikers. Blasting is one of the tools which is occasionally used to provide this system. Failure to employ such techniques could make a trail impassable to both stock and hikers and has potential to cause resource impacts from trail users bypassing obstacles.

**Public Concern #208:** *The Forests should allow commercial pack stock to use all trails and areas historically used by stock, and these trails should be maintained accordingly. Commercial stock should not be restricted from trails that private stock are allowed to use, since all stock have the same impacts, and commercial operators can handle safety issues on the trails. (response # 198)*

**Response:** The 2001 Wilderness Plan specifically “Permits recreational pack stock and hiker use on all trails except Mt Whitney and Meysan Lake, which are closed to pack stock” (Record of Decision, pg. 4). The plan also provides for designating certain trails as “Not Recommended for Stock,” which would directly prohibit commercial operators from using such trails. This designation in the FEIS is now “Not Suitable for Commercial Stock” (NSCS), to clarify the intent. The Pack Stock Management analysis is focused on commercial pack stock operators, and is not intended to make actions directly affecting private stock or other Wilderness users.

The NSCS designations are primarily focused on resource impacts and/or destination limitations, and are not intended to deal with safety issues. Commercial operators are capable of making judgments regarding the safety of their clients, stock, and wranglers related to relative risks on a

trail, but where there are trail or resource instability concerns, it may be necessary to remove recurring stock use. Since private stock makes up such a small fraction of stock use, and an even smaller level of total trail use; and since most of the private equestrian use is on higher level trails, the comparative impacts are relatively low.

**Public Concern #209:** *On page IV-46, the Forest Service seems to not want to invest in maintenance resources and by keeping commercial stock off the trail; they believe they might not need to maintain the trails. "Hikers can go anywhere". On page IV-109 "Trails with severe water and soil resource impacts may be repaired within 10 – 30 years". This does not sound like a high priority issue! (response # 198)*

**Response:** It is the intent of the Forests to maintain trails in a manner that keeps them stable under the anticipated uses. Recurring use by commercial stock—especially on less-developed trails—is a factor which can increase the instability of a trail without high levels of maintenance. In areas with high risk factors and/or other limiting factors, reducing pack stock may increase trail stability. Funding for both the Sierra and Inyo NF is inadequate to equally maintain all trail infrastructure and resource stability on every trail with every use type and level. Prioritizing these limited financial resources allows the Forest Service to focus on trails receiving the highest levels of commercial and private use.

**Public Concern #210:** *The trail inventory [for the Sierra NF] referenced in the DEIS is incorrect, incomplete, and improperly referenced. A more accurate trails inventory than the 2001 Wilderness Plan was made available during the Backcountry Horsemen lawsuit. (response # 273)*

**Response:** An inventory was in place for the Inyo NF at the time of the last FLRMP (1988), but no comparable inventory was found for the Sierra NF, and was not directly referenced in the Settlement Agreement with the BCHA. As stated in this comment above and in the Purpose and Need for the DEIS, all known inventories—including the 2001 Wilderness Plan inventory (Appendix C)—had a variety of errors, omissions, improper inclusions, and other inaccuracies. This is part of the need for completing the analysis.

**Public Concern #211:** *The decision related to commercial pack stock may have a profound effect on the future of private stock in these two wildernesses. Private stock use, according to the Forest Service records reported in the DEIS, comprises a very small percentage of total use (3%). It may become increasingly difficult to justify expenditures related to managing the trail system for such a small amount of use. (response # 273)*

**Response:** While private equestrians account for a small number of total users, trails will continue to be maintained in a manner which accommodates their use, within budget constraints. The vast majority of private equestrian use occurs on higher level (Class 2 and 3) trails, in part due to the long-term awkward conditions historically found on most lower-level (Class 1) trails.

**Public Concern #212:** *The DEIS violates NEPA by failing to adequately consider the effects of reducing trail standards on historic users. The DEIS choose not to address the issue that trails in Recreation Category 1 areas will become impassable to stock because the issue was decided in the 2001 ROD. Although the proposed alternative does not specifically close trails in Recreation Category 1 to stock use, design attributes for Trail Class are not sufficient to accommodate passage with pack and saddle stock. (response # 276, 278).*



**Response:** When Recreation Categories (RC) were determined in the 2001 Wilderness Plan, the existing uses and development of facilities (including trails) were considered. In general, these areas have low-development trails, because historical and existing uses are relatively low. There are generally very few trails in RC1 areas, and these are often assigned lower Trail Classes (TC1 and TC2) since the trails can remain open and stable with low use and with minimal development and management. It should be noted that approximately 40-50% of all trails accessing RC1 areas are TC2 or TC3. All Trail Classes have maintenance standards which are intended to allow passage of pack or saddle animals, though TC1 trails are much more difficult to travel than higher-development trails.

**Public Concern #213:** *The DEIS concludes that establishing trails not recommended for stock and prohibiting commercial packstock on some trails may reduce conflicts between users. The document uses conflict management as part of the justification for selecting Alternative 2, yet fails to consider a full range of alternatives for accomplishing that objective. We suspect that the real motivation of these restriction is to accommodate a relatively small minority of 'wilder-extremists' (both inside and outside the agency) who object to seeing stock in the wilderness and object to knowing that commercial packers are providing services for profit. (response # 276, 278)*

**Response:** Reducing conflicts was described as an effect or byproduct of the designations, not as a purpose or need for the analysis. In the FEIS selected alternative, trails are no longer described as "Not Recommended for Stock." Similar advisories may be provided in public information to help trail users with expectations of conditions. Trails closed to commercial stock are based on resource concerns, as well as potential effects on various factors, including wilderness character at the destinations. The criteria are described in the summary section of each alternative in Chapter 2.

**Public Concern #214:** *The DEIS violates NEPA by failing to analyze the effects of allowing stock use on trails that are not managed to accommodate that use. For example, insufficient clearing widths and heights on TC 1 will likely result in stock users leaving the trail to go around logs and other obstructions. (response # 276, 278)*

**Response:** Most Trail Class 1 trails receive very low equestrian use, and the trails should remain generally stable under such limited use. The potential effects of stock use on underdeveloped trails were disclosed in the DEIS Chapter 4. Standards for Trail Class 1 trails are clarified in Chapter 2 to ensure that obstacles will be removed to accommodate packs and saddles when such use is present, so that stock can stay on the trail.

**Public Concern #215:** *The Forest Service should not implement the proposed "National Trail Management Classes."*

**Comment:** *The Purpose and Need Section makes assumptions, or inaccurately interprets legislation, that are inconsistent with the intent of law or policy. Specifically, the use of proposed trail service levels and maintenance standards in the DEIS does not conform with direction in the Forest Service Directives system. The National system of trail classes or service levels and the classification system they are a part of has not been subject to NEPA analysis nor has it been approved by the Chief of the Forest Service. Current direction in the Forest Service directives system calls for a three classification system of "easy, more difficult, and most difficult" and provides design guides for these three classes that are substantially different than those for the service levels in the DEIS. (response # 276, 278)*

**Comment:** *In accordance to the Wilderness Plan, in all of the proposed alternatives within the DEIS, inventories of trails within the wilderness areas will be subjected to a "National Trail Management Classes," which does not exist at the present time (DEIS at II-2). How can there be so much discussion about "trail classes" and levels of management when the National Trail Management Classes, and the attendant "service levels" ascribed to each class, have not been determined? Since its does not yet exist, there is, presently, no way to determine whether the National Trail Management Class formulated in the hills and woodlands of the eastern United States will have relevance to the Sierra. (response # 357, 348)*

**Comment:** *The National Trail Use Standards listed in this document are not yet approved nationally. These standards are being applied in this document improperly and used as if they were approved. (response # 273, 278)*

**Comment:** *Although an improvement from the 2001 Wilderness Plan, there is concern over some of the trail design standards. Specifically, the TC-1 tread width is insufficient to accommodate anything but very light stock without resource impact. Surface obstacles are also a problem. For TC-2 standards, there is still a concern with the standard for surface obstacles. (response #273)*

**Response:** While the national direction regarding Trail Classes is not currently in the Forest Service Trails Handbook (FSH 2309.18), it has been interpreted as an expansion and clarification of management and design in existing similar classifications (described as "Difficulty Levels" in the 1991 Handbook). The five-level National Trail Class system was based on a long-standing five-level system used prior to 1991, and has been in development and use since 2001, as a way to more accurately classify trails for costing and consistent management.

The Inyo and Sierra Forests described intended management for each of the AA/JM Wilderness trails in the DEIS, using the Draft National Trail Management Classes as a baseline. These were then modified slightly, to clarify specific direction for these two wilderness areas. Design guidance for trails within the AA/JM was also based on the Draft Design Parameters, which take into account the Trail Class and use type in managing trails.

While there are slight differences between the "Difficulty Level" system and the Trail Class system, the definitions in the new system—especially as clarified in the AA/JM document—make clear the intent to accommodate varying levels and abilities of pack and saddle use on trails in the AA/JM Wildernesses. Standards in FSH 2309.18 for trails designated "Most Difficult Pack and Saddle Trails" specifically state that "pack animals are normally not accommodated on most difficult trails." Since the JM/AA 2001 Wilderness Plan allows private stock on all trails, TC1 standards are designed to at least minimally accommodate all users.

**Public Concern #216:** *The following statement of the "Purpose and Need for Action" is inconsistent with the intent of the Wilderness Act: "Use of inaccurate inventories and trail management objectives that were not be in compliance with the 2001 Wilderness Plan has led to ineffective management of the trail system, which in turn adversely affects both users and resources.. Past trail system inventories for these areas are incomplete, have a variety of inaccuracies, and in many cases are inconsistent with the management of the areas that they access." Unless it can be clearly documented that management actions since designation have resulted in development of the trail system to a higher level than that which existed when Congress determined the two areas as suitable as wilderness, or unless there is specific statutory wording directing that the trail standards be downgraded to a lesser standard than existed when*

*Congress deemed them suitable, it must be acknowledged that "past trail system inventories" are consistent with Congress' intent regarding the management of the areas they access. (response # 276, 278)*

**Response:** By carefully assessing both the existing and anticipated needs of the trail system, an accurate inventory can be developed. As described in the purpose and need in the DEIS, some "trails" on the inventory clearly had never been a distinguishable trail, and others clearly had always been incongruent with their stated management levels. Management direction for these wildernesses that is more recent and builds upon the Wilderness Act (such as the Inyo and Sierra Forest Plans and the 2001 Wilderness Plan) provides more specific guidance regarding trail management in these Wildernesses. The selected alternative in the FEIS has an inventory which considers this specific management direction.

**Public Concern #217:** *The DEIS inadequately assesses the cost of managing a trail system to accommodate allowed use and correct the effects of deferred or otherwise inadequate maintenance. The Forests are using inadequate maintenance budgets as justification to exclude, limit, or otherwise discourage allowed and historical uses and to create a favorable setting for a special class of users. (response # 276, 278)*

**Response:** The FEIS has a more complete analysis of costs associated with managing the trail system. The Forests recognize that under current budgets, not all trails can be maintained to the designated standard.

**Public Concern #218:** *A comparison of any map published before 1964 with a Forest Service map available now reveals that there are less trails represented on Forest Service maps now than there were on maps published prior to 1964. The reason for this is open to speculation, but the fact that a trail is not represented on a current Forest Service map does not mean that it does not exist. Thus, the "trail inventories" submitted by the Forest Service probably exclude many trails which will no longer "exist" if the terms of the DEIS are adhered to. To wit, at page IV-33, the DEIS states, "Trails removed from the inventory generally [emphasis added] did not exist on the ground . . . In some cases, these trails appeared on published maps."*

*The DEIS contains references to the savings in cost of diminishing trail maintenance through the "reclassification" of trails to a lower trail class level. (IV-35) The exclusion of these "non-existent" trails (1) eliminates the cost of maintaining them, and (2) closes them to pack stock (II-3). To save a few dollars (and by not allowing volunteer trail maintenance efforts), trails will be lost or closed to pack stock. (response # 348, 357)*

**Response:** See Response to Public Concern # 216

**Public Concern #219:** *The DEIS fails to evaluate the current as well as historical environmental impact of all uses in the areas in establishing a Trail Management Plan, notwithstanding that the DEIS recognizes that uses other than stock use have a significant impact. (ES-8) (response # 401)*

**Response:** The current analysis is primarily focused on commercial pack stock operations. The trail plan attempts to respond to anticipated use types and levels, whether hiker, private equestrian, or commercial equestrian. As stated in the introduction for the trails section in Chapter 4, all trail users have a variety of effects on a trail system and resources in the immediate corridor. The effects of hiker use on a trail are different than equestrian use, and are described in that section.



**Public Concern #220:** *California Equestrian and Trails and Lands Coalition objects to the proposal in the DEIS to adjust trail maintenance levels to reflect recreation categories and desired conditions in the 2001 Wilderness Plan. Alternatives 2-5 will restrict the use of much of the trail system by historic pack and saddle stock, limit pack and saddle stock to heavily impacted portions of the wilderness and deny pack and saddle stock users the opportunity for solitude and a primitive or unconfined recreation intended by the Wilderness Act. (response # 278)*

**Response:** See Response to Public Concern #212 and #214.

**Public Concern #221:** *Have pack stations lost the use of trails by combining the Trail Plan with the Commercial Pack Stock Management EIS? (response # 311)*

**Response:** No. The analysis of the two planning efforts is being conducted jointly, in part because many of the considerations are the same. However, the actions for each planning effort are being undertaken separately, so that the Commercial Pack Stock Management actions are limited to commercial users, and the Trail Plan affects all trail users.

**Public Concern #222:** *When providing education about trails not recommended for private stock, limit signage within wilderness to the minimum.*

**Comment:** *We also would suggest that that warning signs on trails Not Recommended for Stock (NRFS) be done only in a general sense at the trailheads or perhaps listed in some sort of handout that could be given to stock users. Risk is inherent in Wilderness, and most of the wilderness areas surrounding the Ansel Adams and John Muir have policies against warning signs within wilderness areas. Signing within the wilderness may imply this sort of hazard is safe if not signed, and set precedence for those using other parts of the Sierra. Closing a trail to prevent resource degradation does not necessarily violate our policies in the park, although signing is kept to a minimum. (response # 426)*

**Comment:** *The level of signing for trails designated as "Not recommended for Stock." In general, wilderness should be as free from human installations as possible. Since these trails are primarily limited to commercial operators, it is reasonable to expect these operators to know where they can and cannot go. To place signs to assure no use seems unnecessary and counter to wilderness management practices. (response # 425)*

**Response:** Trails "Not Recommended for Stock" will not be designated in the FEIS, and will be designated as a future administrative consideration. This comment will be considered when evaluating the best and most appropriate methods to communicate this advisory to the public.

### **National Trail Management Class**

**Public Concern #223:** *The DEIS promises, at ES-5, "The Wilderness Plan direction is to adjust trail maintenance levels to match the three recreation categories (cite). This does not prohibit stock in recreation category 1 areas. Trails may be more primitive and rough, but this does not exclude stock use." And yet the DEIS contains a lot of discussion of just how pack stock WILL BE EXCLUDED from "Class 1" trails! (At pages I-2; II-48; IV-45; I-8; II-3, just to name a few examples.) In fact, the DEIS recommends, at page D-40, "Trail Management Direction: Do not upgrade any trails from maintenance level 1 and 2 solely for the purpose of facilitating stock use." But this statement is contradicted by other citations within the DEIS which show that, in fact, "Where the trail is of poor quality or blocked, thereby forcing detours, additional impacts may occur," (IV-66, Table 4.1.19) and also, "In many cases, designating a higher trail class to*

*meet an immediate or expected demand will have beneficial effects on the physical environment. If a use trail or low-development system trail with minimum management is not so difficult to travel that use is limited, and it is currently receiving heavy use, it is likely that the trail is already causing some physical resource impacts that could be corrected by more intensive management. In these cases, designating a higher class and bringing the trail to standard would likely have a beneficial effect by stabilizing damaged sections of trail, improving drainage and reducing effects on various resources without significantly changing use patterns" (at IV-35). It would appear that trails used by pack stock actually benefit the ecology of those trails, and that would be consistent with the fact that the majority of the trails in existence today were created by stock users before 1964. (response # 348)*

**Response:** See Response to Public Concern # 212 and #214.

**Public Concern #224:** *An economic analysis of trail maintenance funding, including historical, current and anticipated funding, as well as maintenance backlogs by various alternatives must be provided for the public to understand the consequences of the alternatives. (response # 196)*

**Response:** An economic analysis of trail maintenance and funding is in the FEIS document. As described in the FEIS, very few trails are likely to receive "upgrades" from their current development level, though various adjustments have been made—both up and down—in response to a variety of factors. It is also understood that under the current funding regime, it is unlikely that every trail will be fully maintained to the desired standard to meet area management goals.

**Public Concern #225:** *System trails listed in the DEIS are in conflict with what is found on the ground. In a document in the DEIS project file, the Interdisciplinary Team Leader for the project stated in August 2002:*

*"System trails listed in the plan were in conflict with what was on the map as a system trail. Many of the system trails were listed as a higher class than what we observed on the ground. Some of the system trails were not listed in the FEIS, but in a subsequent SNF inventory. "*

*The plan must include an accurate, objective inventory of system trails as they actually exist. (response # 196)*

**Response:** As pointed out in the above quote, made during the planning process, as well as disclosed in the DEIS Purpose and Need, all known inventories of the trail system had inaccuracies, omissions, and other errors as compared to what was found on the ground. This is one of the key purposes of the trail plan. In the FEIS, a summary of the comparison between observed trail development and various alternatives is displayed.

**Public Concern #226:** It is not clear whether the trail management plan is intended to be a programmatic or site-specific document. This is very problematic because it's not clear when the Inyo and Sierra NFs will evaluate the environmental consequences of upgrading the trail designations. What will be the impacts of upgrading a specific trail to the standards identified? What will be the cumulative consequences of upgrading all of the trails in the planning area to the new standards? Forest Service staff has said in the past that the site-specific impacts will be evaluated in project-specific documents. But when it's time for project-specific analysis, they say that the decision on trail class has already been made they're just upgrading the trail to the identified level, and the trail class/level designation is not up for discussion. The Forest Service cannot have it both ways: the Forest Service must either evaluate the impacts of upgrading trail



designations at the programmatic or site-specific level. And the Forest Service cannot properly adopt inflated trail classes/designations that would allow substantial upgrades, putting off the issue until project-specific analyses, and then argue during project-specific analyses that such analysis is unnecessary (or that trail class is not up for re-consideration) because the decision has already been made at the programmatic level. (response # 196)

**Response:** This document designates the Trail Classes which will be used in future trail management. Project specific NEPA will be undertaken to analyze site specific physical effects of the repair work, which will use the Trail Class design guidance as the basis for the proposed design of the project. That analysis will not change the trail classes designated in this effort.

**Public Concern #227:** *The National Trail Management Class system is still in Draft form, and there is no national directive that it must be used. Additionally, the design guides for the Trail Classes have direction that is inconsistent with wilderness management, and should be modified for wilderness trails.*

**Comment:** *The Trail Management Classes (TMCs) have never undergone any formal rulemaking, and they are not included in the Forest Service Manual or Forest Service Handbook. Thus, they do not constitute law, regulation, or policy. The proposed action claims that they are national direction, yet there is no binding national directive that requires their use. The DEIS does not adequately describe what actions will be taken on what trails to bring them up to the identified TMCs. Thus, decision-makers and the public are not able to understand the extent of the proposal, or the environmental consequences. (response # 196)*

**Comment:** *The plan must acknowledge that elements contained in the TMCs are inappropriate in wilderness. Trail Class 2 allows for destination signs. Trail Class 3 mandates that destination signs will be Atypically present, that signs will be provided for user reassurance, that trail bridges will be constructed as needed for appropriate access, and that maintenance activities will be conducted for user convenience. Trail Class 4 provides that substantial trail bridges are appropriate at water crossings, that trailside amenities may be present, that a wide variety of signs is likely present, and that trail maintenance activities will be implemented to provide user comfort and ease. None of these things are generally appropriate in designated wilderness. The Inyo and Sierra NFs must not simply incorporate the national Trail Management Classes as written into their trail management plan for these wildernesses, but must both modify them to make them appropriate for designated wilderness, and analyze and disclose the environmental consequences of doing so. (response # 196)*

**Response:** See Response to Public Concern # 219 regarding the intended use of Trail Classes for the AA/JM Wildernesses. Design Guides for the trail classes were clarified in the Draft EIS to show how trails in the AA/JM Wildernesses would be managed. These have been further refined in the FEIS.

**Public Concern #228:** *More trails should be closed to commercial stock. (Attached list of approx 60 trails). Stock should not be allowed to travel cross-country unless site specific analysis shows that this can occur without affecting erosion rates or wilderness character. (response # 196)*

**Response:** Trails which have been determined by the IDT to be most unstable under continued commercial use are closed to commercial pack stock (NSCS). Other trails accessing areas where destination concerns about commercial use were also considered, and in some cases, use is either



prohibited or limited to levels which should be appropriate at these destinations. See Response T5 for similar comment.

**Public Concern #229:** *Use Trails Adaptive Management Strategy is inadequate. The so-called adaptive management strategy for user trails is subjective, non-scientific, and so full of loopholes that it would be incapable of ensuring protection of the wilderness character. (For example, visible tread is allowed to increase by 20% on trails rated 0 before use could be reduced; this number is absolutely arbitrary and does not take into account sensitive resources or provide objective triggers for action.) More simply, scientists have long recommended that commercial pack stock should not be allowed on any non-system user trail(s), except where site-specific environmental analyses demonstrates that a specific route can be open to stock use without increasing erosion rates or otherwise adversely affecting the wilderness character. No user trail should be open to commercial stock travel unless it is: (1) evaluated and cleared by resource specialists, and (2) designated as open to commercial stock in a public NEPA process. At minimum, this highly questionable adaptive management strategy should undergo scientific peer review (by qualified external scientists) before it is utilized by managers. (response # 196)*

**Response:** Use trails approved for use by commercial packstock have been analyzed to determine the likelihood of current and future unacceptable impacts to resources, including wilderness character. Some have had intensive field survey, while others were analyzed based on available information. Since conditions may change over time, monitoring and future management activities will be implemented in response to unacceptable changes. Measuring the percent of visible trail on otherwise undefined routes is just one measurement that is monitored, in addition to point feature impacts. Generally, point feature physical effects on lightly used routes are not as severe as those on heavily used, defined routes, however. Depending upon the type of effect, a variety of actions may be implemented to mitigate effects. Over time, these actions may lead to fewer trails being approved over time, or may allow for other changes in use.

## Trails, Specific Comments on Trails/Tail Inventory

**Public Concern #230:** *Lamarck Col Trail should be closed to commercial stock. Such use is unnecessary, and the trail is being impacted by the stock use. The very small amount of stock supported hiker use is contributing to the notable resource effects in the National Park west of the col.*

**Comment:** *While hiking over Lamarck Col I encountered a group a people hiking without backpacks. They had hired the commercial packer to carry their packs to the base of the Col (very near the top). They said to me: "It's only \$120 each and we'll be fresh when we get to the top." These were all strong, able-bodied men who could have easily carried their own packs, and in fact were planning to carry their packs over Lamarck Col on a rugged backpack trip into Kings Canyon NP and beyond. How is this commercial use necessary? I repeat: How does the Forest Service rationalize this commercial use as necessary?*

*It is of course not necessary. Such one-way dunnage trips are the ultimate in elitism. If you have enough money, you can have a mule carry your pack to the top of the first pass, to get a head start on everyone else, to get quickly past the dust and crowds that the Forest Service has allowed to degrade the trailhead areas, and never mind the erosion it causes, because the Forest Service and the packer don't care. It's all about convenience, luxury, comfort---and money.*

*So in my earlier letters, I asked for some information. And what did I find?*

*The Forest Service approved commercial use of this route for one-way dunnage trips, despite known and documented resource concerns (i.e., “impacts to riparian and meadow areas,” “known mountain yellow-legged frog populations,” “multiple trails and erosion concerns”). Without any elaboration or further study of the issues, the Forest Service simply approved commercial stock use to continue.*

*Despite the fact that the route has never been adequately designed, constructed, or maintained to withstand stock travel, despite the fact that the route is actively eroding and the erosion is being significantly exacerbated by stock travel, despite documented impacts to riparian and meadow areas, the Forest Service allows unnecessary commercial stock use to continue. (response # 346)*

**Comment:** *Some specific aspects that we [Sequoia and Kings Canyon National Park] do not support are: The classification of Trail 3004C, Lamarck Col, as Trail Class 2. We previously communicated our concern that stock support will contribute to the amount of use over the Col and into a fragile and untrailed area of Kings Canyon National Park. This area has received notable resource impacts, including multiple braided use trails and user-built cairns, and a demand for emergency medical services to people who become injured due to their ability not meeting the technical nature of the route. Though the level of use facilitated by stock may seem small, we believe that each incremental effect adds up to an undesirable cumulative impact. We again encourage you to designate Trail 3004C as “Trail Class 1\*, Not Suitable for Commercial Stock.” (response # 425)*

**Response:** In Alternative 2 - Modified, the Lamarck Col Trail is designated as “Not Suitable for Commercial Stock,” with a Trail Class of 2. The trail class 2 designation will allow for adequate structural mitigation to handle the moderate to high number of hikers on the trail. The trail used by pack stock has always ended before the top of the col, at a tarn, and this will remain the ending termini. Use trails continue over the pass into the park, which will be consistent with the unmanaged travel on the west side of the pass.

**Public Concern #231:** *Trails are closed such as the trail from Long Lake up towards Morgan Lake where the Sierra Club trip of 1963 camped. An ideal campsite and the area is beautiful and in excellent shape. However, the Forest Service restricts use to this camp. Access is good and the resource is protected. (response # 275)*

**Response:** The Little Lakes Valley Trail, which goes from Long Lake over Morgan Pass (and on to Morgan Lake) is open to all users—including commercial pack stock—under every alternative. All other system trails in this area are open to all trail users and commercial stock, with the exception of the Gem Lakes Trail, which was designated as Not Suitable for Commercial Stock in Alternative 4 only. Access to camps on the bench above Long Lake (toward Treasure Lakes) is also provided.

**Public Concern #232:** *Trail closures due to lack of maintenance or need for structures should have a ‘sunset’ date. We should all be working to find a solution to problems and then fix them, rather than close use. (response # 355)*

**Response:** In cases where trails could be readily repaired and few risk factors were present – aside from the need for physical mitigation – these trails were only temporarily closed to commercial stock. After repairs, some level of use would be allowed. In cases where stabilizing a trail would demand an inordinate amount of repair, or would require repairs that would be inconsistent with area desired conditions, or where risk factors are present that would make

repairs unlikely to succeed with continued stock use, trails were designated as closed to commercial stock use.

## Trails, Comments on Chapter 2

**Public Concern #233:** *II - 31: System Trails - what "educational efforts" will be implemented? The public should be able to review this before trail closures take affect that would punish only those visitors who use Pack Station services. (response # 355)*

**Response:** The "educational efforts" mentioned in this section refer to signing and other notification of private equestrians to ensure awareness of which trails are designated "Not Recommended for [private] Stock", and what type of conditions should be expected on these trails.

**Public Concern #234:** *We are frustrated with the Trails Plan because the Forest states that impacts to trails are caused by pack stock, yet recognize that in most cases these impacts can be mitigated and stopped by routine maintenance and appropriate structures. The Forest also recognizes that high backpack use causes the same type of impacts. Further, these impacted conditions (in the scope of 1.1 million acres) are extremely minimal and likely will not improve even if pack stock is re-moved. Since hiking/backpacking/day hiking has increased dramatically over the last 40 years, while at the same time stockpacking use has declined drastically, it is reasonable to assume the impacts of concern can be attributed to hiking use. Yet no disclosure is made of what these impacts are attributable to, pack stock is the only use being restricted, thereby denying access to certain lakes, trails and campsites used by families and groups for generations. (response # 355)*

**Response:** It is recognized that many impacts occur to trails and other areas within wilderness that are not attributable to commercial pack stock. While certain impacts can be traced to certain activities, the intent is to evaluate the current situation, and address or reduce impacts where possible. Actions within this document are focused on the permitted activities of commercial operators. While these actions will not solve every impact of every wilderness user, or even every impact of commercial stock, it is expected that these actions will have beneficial effects toward meeting desired conditions of these wilderness areas.

**Public Concern #235:** *2.3.1 Trail Management Plan - Construction of new trails needs to be left as an option. Should be only allowed on a case by case basis. (response # 355)*

**Response:** The 2001 Wilderness Plan provided direction that the current trail system adequately served the needs of access within the wilderness areas, and that no new trails would be needed. Realigning trails or placing an existing use trail on the trail system are actions specifically allowed within the Wilderness Plan, when such actions will have a beneficial effect on the wilderness resource.

**Public Concern #236:** *2.3.1, Trail Management Plan - Trails should never be removed from the "trail system" once access to an area has been established. If it is to be allowed, it should be a last option and only case by case. (response # 355)*

**Response:** In general, this is the approach that the Forests are taking when trails are removed from the system. As stated in Chapter 4, some "trails" removed from the system have never been an actual defined trail; others have different purposes and levels of use currently than when the trail was originally constructed. For example, mining roads or trails that are not used for



mining any longer combined with a lack of recreational demand has eliminated the need for a maintained trail. In some cases, trails were removed from the inventory if they duplicated a stable system trail to the same destination. Trails which require management to remain stable and available to anticipated uses were not removed from the system.

**Public Concern #237:** *2.3.1 - Trail Management Plan - Bullet pt. 11 is contradictory - Trails should be available to provide access for the public. (response # 355)*

**Response:** The referenced comment is from the 2001 Wilderness Plan, and is intended to clarify that the existing character of a trail will not be changed solely to improve the accessibility of an area – rather, that improvements will be based on an overriding benefit to the wilderness resource.

## Trails, Comments on Chapter 4

**Public Concern #238:** *Trails: page IV-41.. Why doesn't the Forest Service fix the Mono Creek Trail? Why would you fund the McGee Pass Trail for reconstruction and not fix the Mono Creek Trail.*

*The Forest Service fails to have a system in place to fix trails based on need and the public interest. In many cases, the wilderness management team refuses to maintain trail or propose new funding to threaten and penalize commercial packers who refuse to do the bidding of the local wilderness managers. And, perhaps there is money allocated to fix certain trails as quid pro quo for not challenging the Forest Service. COMPLETE LIES!!!*

*Often times trail maintenance is done so that it is convenient for the Forest Service people to be back home by closing. And, for many years an elitist attitude has prevented maintenance of any project that doesn't fit the personal philosophy of the wilderness managers. More LIES!!!*

*The Forest Service has refused to fix or maintain the Mono Creek Trail and the trails to Second and Third Recess. And, they refuse to fix the Shepherd Pass Trail. Another good example is the failure of the Forest Service to fix the trail to the Third Lake in Hilton.*

*The Trail plan lacks a previous history of trail maintenance and a plan for the future. (response #275)*

**Response:** Each Forest submits proposals for special funding to repair trails based on that Forest's priorities and driving issues. McGee Canyon and Mono Creek trails are on different forests, so their funding structures are different.

The Inyo National Forest has invested funds in the Shepherd Pass trail during the past 20 years, including a substantial reconstruction effort in 1989. Each year since (including 2005), obstacles are removed, and basic recurring maintenance performed. This trail, like certain other eastside trails is only occasionally used by stock, and is lightly used by hikers, compared to most other trails in the AA/JM Wilderness. Expending large portions of the limited forest trail budget on such a trail would make very poor economic sense. The upper headwall has unique problems, which make long-term repairs impractical or impossible. As funding or volunteer resources are available, this trail will be maintained to the standards laid out in the FEIS.

## Heritage Resources

**Public Concern #239:** *The document fails to acknowledge Packing as a “Heritage Resource” as required by law.*

**Comment:** *The National Environmental Protection Act (NEPA), as well as the California Environmental Protection Act (CEQA) provides protection to historic resources as it does for the natural environment. Pack operations as an historic activity which have remained in place through the present, as well as the historic trails and pack stations from which they operate, must be considered as valuable historic resources. Impacts to this activity, the trails, and the stations, must be considered under this review to comply with NEPA and CEQA, and mitigation measures must also outlined should your decision alter packing activities as they are currently in place. (response #form letter F, 104)*

**Comment:** *By law, pack stations and the packing industry are recognized as Heritage Resources. These resources are not limited to prehistory Indian usage sites. Nowhere in the document did we note that the Forest Service acknowledged the cultural and historical resources of pack stations and the professional packing industry. The only historical concern is primarily obsidian chipping grounds. Transportation with livestock is as old as the history of man and to imply that it is out of character in wilderness is absurd. Packing has been going on in the Sierra Nevada Mountains for over 150 years. This was long before there was a Forest Service or a Park Service, or environmental groups who have been born since the advent of technology and have no clue over what the real natural world actually is. The land is constantly changing naturally without the help of environmentalists who think it was in a mythical pristine condition 1,000 or so years ago and we must return to that imagined perfect condition. (response # 198)*

**Comment:** *It is clear that the USFS does not value the horse and mule packing industry as a cultural or historical resource. In looking at the Appendix C Literature Cited, a heavy tribal bibliography is cited, but only one book that addresses horse and mule packing and pack stations is included. By the very omission of good historical essays on the history of horses and mule packing in the Sierra, the forests have proven their continued indifference of packing as a cultural and historical resource that is valuable to our modern day society. (response # 279)*

**Comment:** *The DEIS does not address the use, history, or impacts of any reductions or loss of services of commercial packing that would result in each of the alternatives. The Heritage sections are remiss in not meeting the direction in the Programmatic Agreement. The PA clearly directs the agency to identify impacts, as it states “equestrian ... and stock packing are cultural resources that contribute to the significance of historic properties, and accordingly must be considered in addressing impacts on such properties.” (response # 279)*

**Response:** CEQA is not applicable to this project. NEPA does not have a term “heritage resources.” As stated in the DEIS “Heritage resources include archaeological sites, historic buildings, cultural landscapes, objects, and environmental features that inform us about human activities.” There is no legal definition of this term. A pack station over 50 years old is a heritage resource and as such needs to be evaluated to determine whether it is an historic property as defined in the implementing regulations for Section 106 of the National Historic Preservation Act (36 CFR 00.16.1[1]):

Historic property means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by

the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria.

Section 106 requires that federal agencies take into consideration the effects of an undertaking on historical resources, not historical activities or industries per se. Compliance with 36 CFR 800 meets the NEPA requirement that the agency consider

“The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places (40 CFR 1508.27(b)(8)). See Chapter 4.1.1.4 for a discussion of identification and monitoring efforts.

All heritage resources within the inventoried areas were recorded and considered. In determining which were impacted by the pack station operations, the forests used monitoring data collected at over 300 historic properties in the wildernesses to derive “resources of interest”, i.e., those potential historic properties that may be adversely affected by the proposed action. The list of resources of interest does include some heritage resources associated with packing such as trash dumps and drift fences.

There are no actions planned that will adversely effect the historic values of trails. Future trails work will include consideration of historic values under Section 106 (Chapter 2: Direction Common to All). The pack stations themselves are being evaluated under SUP EIS and appropriate Historic Property Management Plans developed for each that will include mitigation where needed.

An expanded history of packing is included in the Final EIS.

**Public Concern #240:** *The proposals will have an adverse effect on historic pack station properties protected under the National Historic Preservation Act. (response # form letter A)*

**Response:** There are no planned activities that will adversely affect pack station properties.

As stated above, Section 106 of the National Historic Preservation Act requires federal agencies to take into consideration the effects of actions on historic properties. It does not require preservation of historic properties.

**Response:** The FEIS will address the use, history and impacts of the alternatives on commercial packing.

**Public Concern #241:** *Closing historic trails, destroying historic sites, denying historic usage of trails to any one group, is in clear violation of the Historic Sites Act of 1935. (response #103)*

**Response:** No destruction of historic sites is planned. Studies have shown that trails follow various alignments within corridors over time depending upon a variety of human and environmental variables. Historic trail corridors are not being closed.

**Public Concern #242:** *It should be explained why tephra deposits are singled out from other geologic materials as a heritage resource (section 3.1.1.4). Also, while shod hooves may trample flaked stone tools, what is the probability of that occurring per mile of trail and does that exceed the probability of a hiker or backpacker picking one up and putting it in their pocket. (response # 248)*



**Response:** Tephra deposits are singled out because of their chronometric importance and the paleoenvironmental information they contain.

Both shod and unshod hooves have been demonstrated to trample flakes and other artifacts such as pottery. The probability of a flake being trampled on a given stretch of trail would be dependent upon flake density, trail condition, the length of the stride of the horse, mule, or llama involve, the weight of the load the animal is carrying, and possibly other variables. All of which is moot as it is stated in Chapter 4, Table 4.1.19 Effects on Resources of Interest, that "Continued [trail] use in and of itself does not appear to be an adverse effect."

## Soils and Hydrology

### Water Quality

**Public Concern #243:** *The NEPA document should contain appropriate measures to ensure compliance with water quality standards and control measures of the Regional Board's Water Quality Control Plan (Basin Plan). The NEPA should consider potential impacts from both short and long-term effects resulting from pack animal and human usage of trails and wilderness areas. Impacts such as stream crossings that have habitat destruction due to stomping or water quality issues due to animal or human fecal material. The continued use of the same campsites could potentially cause long-term erosional impacts. Water quality could be degraded from surface runoff as a result of increased erosion from pack animal and human activities. Best management practices for mitigation of potential impacts need to be included in the NEPA document for both temporary and permanent impacts to streams and wilderness areas due to pack animal and associated human activities in the John Muir and Ansel Adams Wildernesses. (response #5)*

**Response:** The FEIS includes a revised and lengthened discussion of the water quality standards in the Water Quality Control Plans in Chapter 3 Hydrology Section (under the heading "Water Quality"). The potential impacts to water quality from commercial pack stock and the associated human use throughout Chapter 4 Hydrology Section (under the headings "Water Quality – Animal Waste" and under each wilderness-scale effects analysis, "Grazing water quality effects," "trails," and "Cumulative Impacts").

In Chapter 4 Hydrology Section, the effects of commercial pack stock campsites are discussed under each Alternative at the wilderness-scale and at the Geographic Unit scale. The current level of compliance with BMPs related to campsites is in Chapter 3 Hydrology Section under the heading, "Campsites."

Methods proposed under each alternative to manage the effects of commercial pack stock use on water and soil quality are included in the DEIS and FEIS throughout Chapter 2, especially in Sections 2.2 and 2.3.

The effects to wetlands is discussed in Chapter 4 Hydrology Section, under each alternative at the wildness and geographic unit scales, under the headings "Meadows/wetlands," "Meadow hydrologic function," "meadow stream functional condition," and "meadow soil effects."

**Public Concern #244:** *The Forest Service should not allow stock animals to roam freely where they can deposit manure into drinkable surface waters. The Forest Service should prevent such*

*water contamination by requiring stock animals to be tied or fenced away from surface waters (response #form letter G)*

**Response:** The FEIS includes a revised and lengthened discussion of the possible effects of pack stock manure on water quality in Chapters 3 and 4, Hydrology Section (under the headings “Water Quality” and “Water Quality – Animal Waste, respectively).

The FEIS contains a more thorough discussion of potential pathogen transmission from pack stock to surface water and humans than was in the DEIS (in Chapters 3 and 4, Hydrology Section). The Forest Service reviewed more articles pertaining to pathogens in pack stock manure and in Sierra Nevada wilderness water. In our review, we could not find any data that showed a connection between pack stock use and degraded water quality or pathogen transmission to humans. We could also find no data that suggest significant levels of human pathogens or other pollutants are in surface water within the John Muir and Ansel Adams Wildernesses. While it is acknowledged that pack stock deposit manure in water when crossing streams, watering, or grazing, there is no evidence that beneficial uses of water (such as drinking, swimming, fish spawning habitat) in the AA/JM Wildernesses are being substantially affected by this manure.

Due to the lack of evidence that enough manure is entering surface water to degrade current water quality or affect beneficial uses except very locally at the site of manure deposition, management actions were not taken to address this issue.

**Public Concern #245:** *Pathogens. The analysis of pathogens in the DEIS (IV-98) is less than one page long, and is totally inadequate. Scoping comments from interested parties clearly alerted USFS to the issue of pathogens in packstock manure. The USFS allows commercial packstock (i.e., horses and mules) to freely roam and deposit manure into surface waters that are consumed by wilderness visitors. There are NO fences to keep packstock from depositing manure directly into streams and lakes from which wilderness visitors drink.*

*The DEIS properly cites a recent study by Derlet and Carlson, but fails to acknowledge that these scientists found pathogens in 18.5 percent of packstock manure samples. This means that approximately 18.5 percent of packstock manure that is deposited directly into surface waters is polluting surface waters with human pathogens (in addition to nutrients and other pollutants). In short, packstock are polluting streams and lakes in the Muir-Adams Wildernesses with human pathogens.*

*This is in spite of the fact that management practices (i.e., portable electric fencing, packed in feed, pickets, diapers, etc.) are now readily available to keep packstock manure out of surface waters. The DEIS must evaluate all available options for preventing this on-going pollution.*

*The DEIS fails to mention any State water quality standards for pathogens, nor does it mention Antidegradation requirements. Neither the Forest Service, nor the Central Valley Regional Water Quality Control Board, nor the Lahontan Regional Water Quality Control Board have made the findings required by State Water Resources Control Board’s Resolution 68-16 to allow degradation of water quality by packstock manure and urine that is deposited directly into surface waters.*

*The DEIS concludes that: pack stock manure is not known to have contaminated water with human pathogens. This is a ridiculous statement. We know that packstock manure contains human pathogens. The study by Derlet and Carlson (cited in the DEIS) documents this fact. And*

*we know that packstock roam freely to graze when they are not working, and regularly deposit manure directly into surface waters. This is enough evidence to know that water is being contaminated with, and polluted by, human pathogens.*

*The analysis of pathogens in the DEIS is also flawed because it implies that the only pathogens in packstock manure are bacteria. In fact, Derlet and Carlson also found that packstock manure contains giardia, which is a protozoal parasite more resistant to disinfection than bacteria.*

*The DEIS's analysis regarding pathogens is woefully inadequate. We know that packstock manure contains pathogens (not only harmful bacteria, but also giardia). We know that packstock manure is deposited directly into surface waters, because packstock are allowed to roam freely and have many times been observed defecating directly into surface waters (in addition to contaminated runoff from manure deposited in near-stream areas). And we know that such impacts are avoidable, because modern management practices could be applied to prevent the contamination, even in remote wilderness settings. (response # 196)*

**Response:** The FEIS contains a more thorough discussion of potential pathogen transmission from pack stock to surface water and humans than was in the DEIS (in Chapters 3 and 4, Hydrology Section). The Forest Service reviewed more articles pertaining to pathogens in pack stock manure and in Sierra Nevada wilderness water. In our review, we could not find any data that showed a connection between pack stock use and degraded water quality or pathogen transmission to humans. We could also find no data that suggest significant levels of human pathogens are in surface water within the John Muir and Ansel Adams Wildernesses.

There is evidence that areas heavily used by backpackers and pack stock, or areas grazed by sheep or cattle, have increased levels of pathogens and fecal coliform in the water (Suk et al. 1987, Suk et al. 1986, Derlet et al. 2004, Derlet and Carlson 2003). The Suk studies found that giardia existed in low concentrations in sites used heavily by backpackers and packstock, but in some other areas heavily used by pack stock and backpackers, no giardia were found. There is plenty of circumstantial evidence that drinking water in the wildernesses has made hikers sick, but this evidence is difficult to substantiate. The connection with pack stock manure is unknown.

The few limited studies completed on human pathogens in pack stock manure in the Sierra Nevada (Johnson et al. 1997, Derlet and Carlson 2002, Atwill et al. 2000) found that there are pathogens in a minority of manure from packstock used in Sierra Nevada wilderness areas. Johnson et al. (1997) and Atwill et al. (2000) found that less than 5% of pack stock manure sampled contained giardia, and found no cryptosporidium. Derlet and Carlson (2002) found pathogenic bacteria in 15 of 81 samples, and giardia in one sample taken on trails in Yosemite, Sequoia and Kings Canyon National Parks.

While these studies suggest that there is a risk of pack stock manure carrying human pathogens and depositing these pathogens in water when crossing streams, watering, or grazing, there is no evidence that water quality in the AA/JM Wildernesses is being substantially affected by this manure.

Page IV-98 of the DEIS (section 4.1.2.1) states, "Derlet and Carlson (2002) found that 15 of 81 samples of fresh pack stock manure on trails in Yosemite and Sequoia/Kings Canyon National Parks contained pathogens capable of causing human disease." This corresponds to 18.5%. In the FEIS, we included the percentage, for greater clarity.



**Public Concern #246:** *Nutrients. The DEIS acknowledges (at p. IV-98) that packstock manure and urine could lead to increased nutrient levels in lakes. Alteration of nutrient levels can lead to alteration of aquatic ecosystems and create a more fertile environment for bacterial preservation and reproduction. Such human-caused alterations of nutrient levels are potentially significant, and are not allowable, because no antidegradation findings have been made to allow nutrient increases in the high quality waters normally found in the John Muir and Ansel Adams Wildernesses. The USFS needs to evaluate and implement modern, feasible, reasonable, and readily-available management practices to keep packstock manure and urine out of surface waters and wetlands (i.e., portable electric fences, diapers, etc.). And the USFS must address federal and State Antidegradation requirements before it allows any further human-caused increases in nutrient levels due to recreational practices. (response # 196)*

**Response:** There is very little research available discussing nutrient levels in Sierra Nevada waters. We could not find any that relate nutrient levels to commercial pack stock or other recreational use, although as stated above, the DEIS does acknowledge that there is a potential for such increases.

The FEIS includes a more thorough discussion of nutrient levels in the Sierra Nevada than was included in the DEIS in Section 3.1.2.2. The discussion is as follows:

There have been few studies about nutrients in Sierra Nevada Lakes, and no studies were found that discussed terrestrial nutrient inputs. A few studies suggest that algae and phosphorous levels have increased in Sierra Nevada Lakes over a wide area in the past two decades (Sickman et al. 2003, Schindler et al. 2001), but these studies cite introduced fish and atmospheric deposition as causes. Sickman et al (2003) suggested that the widespread nature of eutrophication suggests that nutrients entering lakes are airborne. Nutrient contributions from recreational activities are unknown, but could occur from human waste, soap used for washing, sunscreen washed off in lakes, or packstock or cattle manure.

The FEIS also includes discussion of the antidegradation requirement included in the Water Quality Control Plans, and the effects of each alternative on water quality pursuant to the antidegradation requirements. The discussion in Chapters 3, Hydrology Section under the heading, "Water Quality" is as follows:

Quantitative water quality data was not collected as part of this project, partially because beneficial uses, such as swimming, municipal drinking water, and fish spawning habitat, were not observed to be affected by water quality. Downstream water quality at the areas of municipal use is assumed to be an indication of wilderness water quality, because the water originates in the wilderness. Municipal water quality is not completely indicative of wilderness water quality. Some wilderness values and beneficial uses within the wilderness, such as wildlife habitat, may be more sensitive to water quality than municipal uses downstream. Further, any pollutants become diluted downstream. Because it is assumed that the water quality currently meets or exceeds water quality standards from the Lahontan Water Quality Control Plan (standards can be found in *Water Quality Standards* document in the project record), the water is subject to the "nondegradation objective" (LRWQCB 1994). This object requires, "continued maintenance of existing high quality waters" that exceed quantitative standards, with no degradation. There is no indication that water quality has been degraded by recreational uses, according to the small amount of quantitative data available.

There are not enough quantitative data to determine whether that assumption is correct.

While the FEIS acknowledges that manure enters water and can affect local water quality, it is assumed that there is not enough manure deposited in the water to affect beneficial uses or degrade water quality away from directly adjacent to the site of manure deposition relative to past conditions.

**Public Concern #247:** *It has long been known that stock holding areas pose the potential to cause significant nonpoint source water pollution. The Forest Service's own Best Management Practices Evaluation Program has shown that backcountry stock holding areas have among the lowest implementation and effectiveness scores of any nonpoint source pollution category. The DEIS states that the Forest Service and/or permittees will prevent nonpoint source water pollution from stock camps by installing BMPs within five years of permit issuance. The Forest Service cannot legally put these problems off for up to five years. It must move more diligently to prevent water pollution from stock holding areas. (response # 196)*

**Response:** Under the selected alternative, Alternative 2 – Modified in the FEIS, implementation of designated stock holding campsites that meet BMPs will occur within two years, not five years as written in the DEIS.

**Public Concern #248:** *The description of the affected environment clearly states that many areas contain meadows, streams, and trails with degraded conditions and hydrological functions which may adversely affect water quality and sensitive critical areas. Although the action alternatives include elements to protect critical areas and reduce adverse impacts, the alternatives do not significantly improve the degraded conditions of these areas. We recognize the contribution of historic high-levels of grazing, mining, and other wilderness uses to current environmental degradation. However, EPA remains concerned with the minimal water quality and ecological improvements provided by the proposed action alternatives.*

*EPA recommends additional management actions be integrated into the preferred alternative to ensure full compliance with water quality standards and more rapid restoration of degraded meadows, streams, and trails. We urge the Forest Service to consider stock night quotas that are aligned with meadow hydrological conditions, closure of meadows with stream segments assessed as functional at-risk with a downward trend, and exclusion of stock from standing water and saturated areas occupied by the Yosemite toad during the breeding and rearing season.*

*A detailed description and commitment to monitoring measures and enforcement is not provided in the DEIS. The lack of this information is of significant concern. Projected improvements to degraded resources are based upon compliance with new, more stringent use standards. We understand that more detailed enforcement and monitoring measures and commitments may be provided in subsequent NEPA analyses for individual Pack Stock Special Use Permits (p. I-2 and telephone conversation with Mary Beth Hennessy, June 23, 2005). If this is the case, we recommend the Forest Service describe the general framework for enforcement and monitoring in the Final Environmental Impact Statement (FEIS) for the Use Authorization action and commit to NEPA analyses for the individual Pack Stock Special Use Permits. These individual Special Use Permit NEPA analyses should include a detailed description and evaluation of monitoring and enforcement measures that will be applied to each permit.*

**Response:** This EIS is a programmatic document addressing commercial pack stock use in the Ansel Adams and John Muir Wildernesses. It does not propose management actions for all uses of the wilderness including other recreational use, mining, or non-commercial pack stock grazing. Site specific actions to more rapidly improve conditions of trails, meadows and campsites than possible by altering management of commercial pack stock use will be addressed in future processes, as necessary.

We considered and analyzed the effects of closure of meadows with stream segments assessed as functional at-risk with a downward trend, and all meadows with severe hydrologic function alteration in Alternative 4. We included exclusion of grazing stock from saturated areas occupied by the Yosemite Toad as a management actions under Alternatives 2-5. As stated in the Wildlife section of Table 2.2 in the DEIS, Yosemite Toad breeding habitat areas would be considered critical areas, where a 5% use standard would apply. The 5% use standard is basically a tool to exclude grazing, while allowing for accidental entry with negligible effects at the limit of measurement.

Alternative 5 considers and analyzes the effects of having no commercial pack stock use in the Wilderness. It therefore analyzes the effects of the maximum protection possible with management changes only commercial pack stock.

The FEIS includes a monitoring plan that will describe monitoring procedures and the specific monitoring findings that will trigger management changes. In the future Special Use Permit EIS, enforcement procedures will be described.

### **Water Quality**

**Public Concern #249:** *The Sierra streams provide drinking water to millions of people. It seems strange that the problem of water pollution from wilderness recreation has received so little attention. Water pollution is so prevalent that even travelers in remote, high-altitude parts of the wilderness have to treat the water. Yet there have been few studies to identify the pollution sources.*

*Cattle grazing is known to be associated with the spread of the giardia organism, and it seems likely that pack stock also transmits this pathogen, especially since it appears in high altitude areas that are not subject to cattle grazing. Removal of pack stock should improve water quality in the wilderness although, of course, other pollution sources would remain.*

*It is recognized that pack stock manure can be a source of increased nutrient levels in lakes. The amount of nutrient increase traceable to this source is not known, but it seems clear that this poses a potential threat to amphibians and aquatic wildlife. (response # 392)*

**Response:** See response to Public Concerns #245 and #246

**Public Concern # 250:** *As the designated water quality management agency under the Clean Water Act Section 208 Management Agency Agreement, the Forest Service is required to implement Best Management Practices (BMPs) and other measures to achieve full compliance with all applicable State water quality standards. Implementation of BMP measures alone do not necessarily ensure full compliance with State water quality standards. For instance, the 2002 Clean Water Act Section 303(d) list identified over 50 streams impaired by excessive sediment, nutrients or pathogens associated with roads, silvicultural activities and/or grazing throughout the Sierra Nevada. Additional management actions beyond BMPs may be required to achieve full compliance with all applicable water quality standards. The Final Environmental Impact*



*Statement (FEIS) should describe water quality standards and BMPs for the project area, including standards for pathogens and Clean Water Act antidegradation requirements. Evaluate the Forest Service's ability to ensure full compliance with water quality standards through the use of BMPs and identify additional measures that may be necessary to achieve compliance.*

**Response:** In response to this comment, the FEIS includes a more thorough discussion of water quality standards and BMPs for the project area (Chapters 3, Hydrology Section), Water Quality subsections. It includes a list of the applicable BMP measures and describes the nondegradation requirement in the state Water Quality Control Plans (Section 3.1.2.2). Throughout the sections of the DEIS on water quality, meadows/wetlands, campsites, and trails, the DEIS describes the known and suspected effects of commercial pack stock use on water quality. The analysis includes estimates about whether actions will degrade water quality or not.

In Alternatives 2-5, measures beyond BMPs are described that are intended to reduce water quality degradation. These measures include more strict grazing management, trailhead and destination quotas, campsite designation, closure of sensitive grazing areas, trails and destinations, exclusion of commercial pack stock from many areas that currently receive little use, and others.

**Public Concern #251:** *Survey results of meadow hydrologic function alteration, properly functioning stream conditions, soil compaction, sod fragmentation, campsite and stock holding area conditions, grazing effects, and trail conditions clearly demonstrate the potential for continued water quality and ecosystem impairment under all alternatives (Chapter 3 and Chapter 4). For example, 8% of trails analyzed are causing severe alteration of soil or hydrologic processes (p. III-25). Under Alternative 2, the Proposed Action, five meadows determined suitable for grazing would continue to have a high potential for increased sod fragmentation (p. IV-115). Continuing current practices where commercial pack stock use appears to be contributing to adverse water quality effects is of concern, especially given the adverse effects of past grazing and mining practices.*

*Recommendation:* EPA recommends that destination quotas, grazing allocations, daily and seasonal stock quotas, and other levels of use controls be aligned with management direction to improve resource conditions. Where commercial pack stock use is clearly contributing to continued impairment of water quality and ecological function, we recommend implementation of more stringent use limits, temporary closures, grazing rotation systems, and other management practices to reduce and eliminate these impacts. We recommend all meadows with severe hydrologic function alteration, nonfunctioning streams, or streams with functional at-risk downward trends be designated not suitable for grazing and closed to grazing.

**Response:** See response to Public Concern # 248

**Public Concern #252:** *The DEIS states that some meadows might continue to have a minor reduction in hydraulic function under Alternative 2 if the recommended number of grazing nights are fully utilized (p. IV-111). However, the DEIS states that it is unlikely that proposed stock nights would all be used in all meadows. Meadows with streams that are functional at-risk with downward trend would continue to have a high number of grazing nights similar to, or more than, recent use (p. IV-113). We recommend the number of maximum grazing nights be allocated based on reduction of hydrologic function alteration and functional at-risk criteria, whether or not these grazing nights are used in their entirety in all meadows. Use limits should not be determined on the assumption that an area will not be grazed at the allocated high stock night*

numbers (e.g., p. IV-262). We recommend the grazing night allocations respond more aggressively to recorded sod compaction, functional at-risk and other identified water quality and ecosystem impairments. The number of maximum stock nights should be aligned with the carrying capacity of the resource or, if use is low, with current practice. For example, the proposed stock nights for Johnston Meadow is 193 stock nights. Even though current reported use is 20 stock nights, the stream is incised, and the meadow has moderate vegetation alteration and is expected to trend away from its potential under Alternative 2 (pps. IV-262 to 263). Because of these degraded conditions, the maximum number of stock nights at Johnston Meadow should be 20 nights or less.

**Response:** see response to Public Concern #248

**Public Concern #253:** *Most of the analyzed campsites within 50 feet of water, regardless of the site type, are contributing sediment and/or manure to surface water (p. III-34) with significant local adverse effects (pps. III- 27 to 34). Furthermore, of 9 stockholding sites and 11 spot/dunnage sites located less than 50 feet from water, over 90% are contributing substances to water and are water quality concerns (pps. III-33, III-34). These adverse water quality effects are of significant concern given the high use of surface waters by other wilderness users.*

*Recommendations: The Forest Service should work closely with pack operators to address water quality impacts caused by stockholding sites and campsites less than 50 feet from water. Of specific concern is Fish Camp in Mono Creek which is located within 10 feet of the water with observable water quality degradation (p. III-34). Other sites causing water quality concerns should be addressed (e.g., Waterfall Camp in French Canyon, p. III-34; specific problems identified at the stockholding campsite near the junction of Shadow Creek and Nydiver Creek, p. III-60). We recommend closure or relocation of campsite and stockholding areas with significant and observable adverse effects to water quality.*

**Response:** Under Alternatives 2-4 and Alternative 2 – Modified, stock holding campsites would be designated. As stated on page II-33 of the DEIS, all designated sites would be “contained in a manner that is consistent with Best Management Practices.” Fish Camp would not be open under any action alternative, because it is within 10 feet of water and therefore cannot meet BMPs. The Preferred Alternative in the FEIS (Alternative 6) also requires designated stock holding campsites that must meet BMPs.

**Public Concern #254:** *Although the DEIS describes concerns with water quality inputs from campsites, eroded/incised trails, stockholding, and grazing areas, it states the assumption that water quality in general is very good with impacts locally moderate to severe (p. III-27). The DEIS does not describe water quality monitoring or quantitative data to support this assumption. The FEIS should describe current water quality monitoring, if any. EPA recommends implementing a monitoring program in areas with known moderate to severe water quality degradation and high use. If finding and staffing resources are limited, the Forest Service should consider a limited, one-time water quality sampling project to validate water quality assumptions and determine if human health risks are present in drinking water sources (e.g. e-coli, guardia, other bacterial pollutants).*

*The Forest Service should commit to the development of subsequent NEPA analyses for specific Pack Stock Special Use Permits. These NEPA documents should include water quality and management effectiveness monitoring plans.*

**Response:** See response to Public Concerns #245 and #246.

**Public Concern # 255:** *The DEIS does not appear to describe or address packstock watering practices which could contribute to water quality impacts. The FEIS should describe packstock watering practices and the potential for environmental impacts to water quality, threatened and endangered species, fish and wildlife, and sensitive aquatic habitat. If potential impacts are likely, describe alternate stock management practices and mitigation measures to reduce these impacts.*

**Response:** In response to this comment, the FEIS includes discussion of the water quality effects of watering practices, under the headings “Grazing Water Quality Effects” in Chapter 4, Hydrology Section, at the wilderness scale.

The FEIS contains a more thorough discussion of potential water quality effects from pack stock than was in the DEIS (in Sections 3.1.2.2 and 4.1.2.1). The Forest Service reviewed more articles pertaining to pathogens in pack stock manure and in Sierra Nevada wilderness water. In our review, we could not find any data that showed a connection between pack stock use and degraded water quality or pathogen transmission to humans. We could also find no data that suggest significant levels of human pathogens are in surface water within the John Muir and Ansel Adams Wildernesses. While it is acknowledged that pack stock deposit manure in water when crossing streams, watering, or grazing, there is no evidence that beneficial uses of water (such as drinking, swimming, fish spawning habitat) in the AA/JM Wildernesses are being substantially affected by this manure. Therefore, mitigation measures were not deemed necessary.

#### **Wetlands/Meadows**

**Public Concern #256:** *Many of the high elevation, mountain meadows may meet the definition of jurisdictional wetlands under the Clean Water Act. We are particularly concerned that significant impacts to seasonal wetlands may occur due to uncontrolled trampling by packstock in the early season when soils are saturated during, and immediately following, snowmelt. No specific grazing start dates are described in the DEIS. The Forest Service should identify the location, extent, and functions and values of jurisdictional wetlands within the project areas and potential impacts to these wetlands from the proposed project. The FEIS should establish adjustable grazing start dates that prevent adverse impacts to the hydrology and biology of wetlands and meadows. These start dates should be based upon range readiness and monitoring results.*

**Response:** In the FEIS, Chapter 3, Hydrology Section, it includes more clear language that the Forest Service considers all wet and moist meadows as wetlands. The potential effects to those meadows/wetlands under all alternatives are described in Chapter 4, Hydrology Section. See also response to Public Concern #288.

**Public Concern #257:** *Wetlands. Most high-elevation meadows are wetlands, and the USFS does not control packstock sufficiently to protect these wetlands from degradation caused by packstock trampling. The most significant damage occurs in the early summer season, following snowmelt, when heavy stock animals trample saturated soils. The USFS's start dates for grazing were chosen more to continue current practices than to protect wetlands. The start dates do not consider in any way the site-specific soil or hydrologic conditions of the high-elevation wetlands in these wildernesses.*



**Response:** see response to Public Concern #288

**Public Concern #258:** *The DEIS says that 94 meadows in these wildernesses were grazed by packstock from 2001 to 2003. Yet it would allow 138 meadows to be grazed under Alternative 2 (June 2004 Proposed Action), 133 meadows to be grazed under Alternative 3 (currently favored action), and 113 meadows to be grazed under Alternative 4. Thus, impacts to wetlands will likely increase under all of the action alternatives (except Alternative 5, which would ban all packstock, and is not likely to be seriously considered), but the DEIS fails to admit this simple fact. Instead, the DEIS relies on unrealistic assumptions to conclude that wetlands will be adequately protected. (response # 196)*

**Response:** The FEIS includes, in the Meadows/wetlands Chapter 4, Hydrology Section, the total number of meadows requested for grazing by commercial pack stock operators. This was considered the realistic number of meadows that was likely grazed at least once in the long-term. Only 94 meadows had reported grazing between 2001 and 2003, but more were grazed in past years (some, such as those in Pioneer Basin and McGee Creek, were closed for resource protection within the past 10-20 years) and therefore have effects that may be at least partially attributable to commercial pack stock. As stated in the Meadows/wetlands Chapter 4, Hydrology Section, "227 of those [meadows] grazed regularly in recent years and most likely to be grazed were analyzed in the field." Therefore, about 1/2 of all meadows requested for grazing and reasonably likely to be used in the future were approved for grazing.

Standards for meadows in wilderness are that meadows and their streams should be in proper functioning condition and the meadows should be in satisfactory rangeland condition (Sierra Nevada Forest Plan Amendment, 2004). Although more meadows are able to be grazed, it is assumed that limits such as stock night allocations, 5% trampling allowed in critical areas such as fens and wetlands, and limits on traveling trips described in Alternatives 2 and 4 would allow meadows to meet resource standards.

The following is included in the FEIS, Chapter 4, Hydrology Section

Under Alternative 2, effects in meadows should be slightly improved from current conditions. Only 94 meadows were actually grazed between 2001 and 2003, and this alternative would allow 138 meadows to be grazed by commercial pack stock. However, meadows found to be unsuitable for grazing or have currently unacceptable impacts would be closed to use, and only meadows found to be suitable for grazing would be open for grazing.

Although 138 meadows would be open to grazing, it would be unlikely for commercial pack stock operators to have grazing in each of those meadows every year. Over the long term, it is likely that they would graze all or most of those meadows, some annually and some only every few years. The commercial pack stock operators requested to use 385 meadows, and are allowed to use about 1,500. However, they only used 94 between 2001 and 2003, and it is assumed that they would continue about the total number of stock nights used in the past, or less, under Alternative 2. They might use less because the number of overnight traveling trips would be reduced and therefore there would be less need for grazing.

Elimination of grazing on some meadows found to be unsuitable for grazing would allow for some local soil and hydrologic condition recovery. Of the 94 meadows that were grazed from 2001-2003, 20 would be closed or rested and 15

would have substantially reduced grazing (at least 20 stock nights less) under Alternative 2. Therefore about 1/3 of the meadows/wetlands that were grazed from 2001-2003 that are unsuitable for grazing would be closed or have reduced impacts from fewer stock nights. About 70 meadows with no reported grazing from 2001-2003 would be opened to grazing. It is assumed that because those meadows were found to be suitable for grazing, and because they were given a grazing allocation to meet utilization standards, the negative effects, although they may occur, will be minimal and within standards.

Under all alternatives, including Alternative 5, which would have no pack stock use, only slight improvement in overall meadow/wetland functional condition is expected (as shown in Table 4.1.31 in the DEIS). Under all alternatives, about 200 meadows are expected to remain in their current hydrologic functioning condition, with almost 40 expected to have improved condition under Alternative 5 and roughly 25 expected to improve under Alternatives 2-4.

### Soils

**Public Concern #259:** *It is clear that pack stock can break up meadow sod and create unsightly areas where water will accumulate. However, in the eastern Sierra, I have not read of any studies that document plant species changes or changes in species composition or density.*

*Without data to support measurable changes in stream channel morphology or turbidity increases, I respectfully suggest that the pack stock "problem" is one of perception and is best addressed by the methods used by social scientists. Vague and all encompassing jargon such as "resource concerns" is no substitute for clear and concise description of individual problems.*

*Commercial pack stock operations are a valid and long standing historic use that should continue to be available to those who desire or require alternative transportation and a different wilderness experience. (response #358)*

**Response:** The interdisciplinary team used the best available literature as a part of this analysis. (see Literature Cited, Appendix C). The research considered and cited includes the most recent research specific to packstock use in similar, and adjacent, ecological settings. This research does assess plant species changes or changes in species composition or density associated with pack stock use in the Sierra Nevada mountains (see Literature Cited, Appendix C, especially the 2004 *Journal of Range Management* article by D. N. Cole, J. W. Van Wagtenonk, M. P. McClaran, P. E. Moore, and N. K. McDougald: *Response of mountain meadows to grazing by recreational stock*).

Throughout Chapters 3 and 4, Hydrology Section, there are site-specific descriptions of stream morphology condition, meadow hydrologic function, soil compaction, and possible sediment increases in channels and lakes. The assumed causes are discussed, and the uncertainty in causes are also discussed. The term, "resource concerns" is often used in the Wilderness or Trails section of the DEIS to summarize the effects to many resources. However, within each specialty, such as "physical sciences" and "vegetation," more specific terms, such as "stream functional condition," "meadow hydrologic function," and "increased fine sediment in streams" are used to describe observed effects.

Beginning on pages III-143 in the DEIS, there are a series of tables (Table 3.2) that describe specific effects to each meadow analyzed. These effects include, "hydrologic function change," "PFC" (stream functional condition), "vegetation composition change," "% that never reaches range readiness," and "spring impacts."

There are no qualitative data available regarding stream morphology or turbidity related in the AA/JM wildernesses. The observations uses were often one-time observations, using visual methods described in the Study Plan (available in the project record). While these observations are not measurable, many used established protocols, such as the Proper Functioning Condition (PFC) protocol, or the Best Management Practice protocol for stock campsites in the wilderness. These established protocols, and other methods described in the Study Plan, can be repeated by future specialists to determine whether the condition has changed over time. The PFC protocol estimates the ability of a stream to withstand high flows, based on the channel form and vegetation on the banks, and addresses stream morphology.

**Public Concern #260:** *Erosion and Sedimentation. The DEIS acknowledges that 30% of meadows visited by USFS specialists have moderate to severe sod fragmentation which is leading to soil erosion and sedimentation of surface waters (DEIS p. IV-126). Yet the USFS proposes to continue grazing in many of these meadows without controls to avoid exacerbation of the on-going erosion and sedimentation. The DEIS has at least three major flaws in its analysis of the potential for erosion and sedimentation: (1) It fails to evaluate management practices that could reduce trampling of sensitive streambanks, lakeshores, and wetlands by packstock (i.e., portable electric fences to keep stock animals out of sensitive areas, more meadow closures and better grazing start dates to avoid trampling of wet areas, etc.). (2) It relies on wholly unrealistic methods to keep packstock animals out of sensitive and closed areas. (3) It allows up to five years or more for BMPs to be installed at stock holding sites, with no plan for monitoring implementation or effectiveness of the BMPs. (response # 196)*

**Response:** The DEIS evaluates three alternatives (Alternatives 2, 3 and 4) where grazing is allowed, but is controlled by allocation of grazing stock nights, implementing a 5% trampling standard for critical areas, and closing meadows that are especially susceptible to erosion. Under the effects analysis in Chapter IV, section 4.2.2.1, the DEIS discusses the predicted effects of grazing strategies under each alternative. It assumes that simply closing sensitive meadows and allocating stock nights would reduce sedimentation overall, because there would be less grazing on those meadows susceptible to erosion.

The DEIS does not prescribe specific practices to meet the required standards: the Forest Service responsible official would work with the commercial pack stock operators to meet the standards using described and available tools in the selected alternative. If operating direction is not met, the responsible official would take appropriate actions to ensure compliance, which could include reducing or eliminating grazing.

### **Monitoring and Enforcement**

**Public Concern #261:** *The DEIS states that there is a high degree of uncertainty in some locations regarding the feasibility of keeping grazing pack stock out of critical areas in accordance with the proposed 5% inadvertent trampling standard (p. IV-111). For instance, Alternative 2 would continue to allow grazing in Upper Spooky Meadow at levels similar to current grazing, even though trampling to the spring with fen characteristics would be difficult to keep at less than 5% without changes to stock management (p. IV-291). Monitoring, compliance, and enforcement of proposed management measures are key in ensuring that projected improvements are achieved. The Forest Service needs to demonstrate that proposed management measures are feasible and enforceable and that management direction will be fully implemented. The FEIS should describe present and future management, monitoring, and*



enforcement measures to ensure that proposed use limitations in meadows, campsites, critical areas, and trails are adequately implemented. Describe and evaluate grazing and stock management practices that can be used to keep pack stock out of critical areas and in compliance with use restrictions (e.g., portable electric fences, drift fences, pack lines). Include a list of mitigation measures that will be implemented if impacts are in excess of the allowable inadvertent level of use. We recommend monitoring to validate the assumption that packers can control grazing stock to prevent their use of critical and unsuitable areas from exceeding inadvertent use levels. The FEIS should include a commitment to implement an adaptive management program which can respond to changing conditions. We recommend working closely with pack operators to maximize implementation of proposed use limitations to prevent excess grazing impacts.

The NEPA analysis for individual Pack Stock Special Use Permits should include a specific monitoring and enforcement plan.

**Response:** The selected alternative, Alternative 2 – Modified identifies the conditions that must be achieved, and provides the responsible official and operator with various tools to do so. Prescribing the specific approach to achieve the condition for every destination given the many variations and differences in operations is not practical or necessary. If the condition cannot be achieved by the operator, the grazing will not occur.

The FEIS includes a monitoring plan that will describe monitoring procedures and the specific monitoring findings that will trigger management changes. In the future Special Use Permit EIS, enforcement procedures will be described.

**Public Concern #262:** *To protect sensitive areas from trampling and erosion, the DEIS relies on the employees of the commercial outfits to monitor stock movements, and to somehow, magically, to keep packstock from roaming into sensitive areas as they freely drift and graze throughout the night. The DEIS (IV-111) acknowledges that there is a large amount of uncertainty about the feasibility of keeping grazing pack stock out of critical areas when they are grazing at large. Yet despite the expressed doubts, the USFS proposes the business-as-usual approach (i.e., identifying critical areas but adopting no realistic measures to protect them). (response # 196)*

**Response:** The selected alternative, Alternative 2 – Modified identifies the conditions that must be achieved, and provides the responsible official and operator with various tools to do so. Prescribing the specific approach to achieve the condition for every destination given the many variations and differences in operation and operators is not practical or necessary. If the condition cannot be achieved by the operator, the grazing will not occur.

## Soils/Hydrology, Comments on Chapter 3

**Public Concern #263:** *Clarification on page 111-82. This paragraph comes to totally incorrect conclusions because of the lack of some occurring facts. The Hurricane Olivia storm occurred in September of 1982. Severe flooding occurred throughout the Sierra. Jackson Meadow, Tully's Hole and Cascade Valley were lakes for many days. Fish Creek incised during that storm. It was not man caused and neither meadow impacts nor trail impacts had anything to do with it. It was days of heavy rains – a natural event. Streams and rivers throughout the Sierra were incised by the floodwaters. In Cascade Valley, prior to the flood, there were logjams and debris that slowed the flow of Fish Creek. These were washed out in a few days. In*

wet years Cascade Valley and Fish Creek have flooded but never like the “storm of 1982”. The flood event of New Years Day 1997 also seemed to have done some flood damage in Cascade Valley. There is a clarification on page 111-79 that relates to the Hurricane Olivia event in Convict Canyon. This was the storm event that originally washed out the trail in Sept. of 1982. Before this event, the trail was quite good for many years. (response # 198)

**Response:** The information you provided about the date of the storm and its cause were included in the FEIS in Chapter 3, Hydrology Section. Further, we added further discussion about the uncertainty regarding the cause of incision. The discussion now reads as follows:

In the Cascade Valley AU, Fish Creek is incised throughout Cascade Valley in the segments that are not bedrock. According to historical accounts (Michael Morse, Forest Service, personal communication, 2004), the stream incised in 1982 during a very heavy hurricane-induced rainstorm. It is unknown whether meadow or trail impacts adjacent to the stream or upstream made any contribution to Fish Creek incision, or whether it was a natural process due to high flows and previous drought conditions that reduced vegetative cover. Its current incised state makes it less able to withstand high flows without further incision and widening. The creek continues to widen, and it is possible, although not verifiable, that meadow conditions contribute to lack of recovery. Meadow conditions could contribute to lack of recovery because the compacted surfaces with reduced vegetative cover reduce infiltration rates. Rainfall and snowmelt therefore runs off on the meadow surface at a higher velocity and at greater volumes than under natural conditions. The high flows enter streams and are transported downstream at higher velocities and higher discharge more capable of eroding stream banks. This process has contributed to incision of streams in Grassy and Jackson Meadows, but it is unknown whether it has contributed to incision of Fish Creek in Cascade Valley downstream.

The storm in September 1982 that resulted in Fish Creek downcutting created the second largest flow in recorded history (since 1922) in the San Joaquin River, just downstream of its confluence with Fish Creek (at the Miller’s Crossing stream gauge). In December 1955, a larger flow was recorded, which did not incise Fish Creek. It is impossible to determine the combination of conditions required for incision, and whether human causes contributed. However, it is possible that there was some human contribution. Gully erosion may be triggered by any, “changes in the watershed or climate which result in more flow, less sediment, reduced vegetation cover, a downstream base-level change, and increased valley floor slope, or a change in subsurface process,” (Hagberg 1995). Both climate and grazing impacts can result in more flow and reduced vegetation cover, and therefore could contribute to stream incision.” Many researchers have correlated gully erosion and stream incision with grazing impacts (Hagberg 1995, Woods 1975, Warren et al. 1986), although there remains uncertainty about the exact conditions and mechanisms that lead to gully erosion.

**The following comments are from response #275:**

**Public Concern #264:** III-82—*The implication that meadow conditions are causing the incision and widening of Fish Creek are ludicrous. The banks are primarily lined by sand and silt. Incredible flash flooding and runoff creates erosion forces.*

*There is no mention of weather and the drought followed by the occasional heavy snow year and flooding. The runoff in Cascade Valley is from up stream. The collapsing of the riverbanks is not from the condition of the meadow.*

*Anything is possible and the hydrology assessment fails as an adequate analysis of hydrologic function in Cascade Valley. At least on III-83 the commentator talks about natural occurring flood events. (response # 275)*

**Response:** see response to Public Concern # 263

**Public Concern #265:** *III-84: What are the campsites that do not meet BMP's?. Aren't they backpacker camps? (response # 275)*

**Response:** The FEIS clarified the type of sites where BMP evaluations were completed in Chapter 3, Hydrology, under the Campsites subheading. The clarification states,

Commercial packers identified approximately 1,617 campsites that they have used in the past or would like to use in the future, and of those, 163 sites were evaluated for water quality effects using the BMPEP protocol and other observations. The sites evaluated were all identified by commercial pack stock operators as sites they use or would like to use. However, some of the sites evaluated did not have any evidence of pack stock use.

**Public Concern #266:** *III-98 The plan suggests that water degradation is due to the campsites of commercial use. For example it states on III-98 that many sites along Mono Creek are located less than 100 ft from the creek and can contribute sediment to the creek during rainfall or snowmelt. It doesn't state that almost all or 100% of the use in these campsites is due to non-commercial wilderness users.*

**Response:** The statement in the DEIS was not clear about the type of sites and the number intended by "many." The wording was therefore changed from, "Many campsites along Mono Creek are located less than 100 feet from the creek and can contribute sediment to the creek during rainfall or snowmelt" to "Of the four pack stock holding or spot/dunnage sites along Mono Creek analyzed for compliance with BMPs, all are located less than 100 feet from the creek and can contribute sediment to the creek during rainfall or snowmelt. An unknown number of sites that are predominantly used by backpackers are also located within 100 feet of Mono Creek. Although many of these sites exist, they tend to be smaller and individually contribute less sediment into Mono Creek."

**Public Concern #267:** *Campsites: Hiker caused BMPEP protocols. There is always a potential for local and lake-wide water quality issues. This document fails to note that the major threat to water quality issues is people and not stock.*

*Picket lines are hundreds of feet to over a thousand feet from the lakes. The comment I heard in the last meeting regarding hydrology in the Basin was that the manure from picket lines would leach into the underground water and contaminate the lakes. Is this the concern noted? What doesn't the Forest Service look at actual water quality samples in Hilton Creek and use them?*

*There are evidence of picket lines close the water in occasional places. This is due to non-commercial stock users.*

*Where is the campsite along Hilton Creek that causing sediment? We don't use any camp on Hilton Creek. There is an old camp where backpackers occasionally use and was used in the 1960's. If this is the camp referred to...it should be so stated. It shows that there can be lasting effects to disturbed areas. What it shows is that non-commercial users often cause much more severe effects than commercial users.*



*In the second to last paragraph on page III-98 they refer to the Fourth Recess AU. They state that 40% of the campsites are contributing sediment to water. They fail to mention that many or most are camps that commercial users don't use. There is no attempt by the Forest Service to separate out use throughout the plan.*

*Yet, how does the Forest Service refer to the Bench Camp at Hopkins Meadow? Are they confused with a camp at Third Recess? It shows the lack of understanding of the Forest Service of what is actually going on in the backcountry.*

*The Forest Service refused to allow the commercial packer from Rock Creek to participate in meeting the id team in Mono Creek. And, we have provided information to our permit administrators over many years to prevent this type of miscommunication.*

*The writers of the section on campsites does not mention or show where we camp at Hopkins Basin, Hopkins and Mono area, Second Recess and the Fourth Recess Lake area. They do make a reasonable attempt at Pioneer Basin.*

*If this is an environmental assessment of campsites and pack stock use; why then doesn't the Forest Service separate out dunnage, spot and fully outfitted trips?*

*The DEIS overstates how many stock camps are less than 100 ft. from water and contribute to sediment. In an environmental document that is supposedly site specific...we should know the number and location of the sites.*

*In many cases, the campsites that have the most use show the least amount of impacts and potential for having water shed during runoff. Reading this analysis does not allow the public or decision makers to make reasonable assumptions about where and how much livestock is appropriate.*

**Response:** This document focuses on commercial pack stock effects, and therefore only discusses impacts of humans not using pack stock in general terms and in the cumulative effects analysis. The following statements have been added to the FEIS to better address the impact of humans and other non-pack stock related uses.

Section 4.1.2.1: Analysis common to all alternatives/ Water Quality-Human waste subsection:

Humans, beavers, deer, dogs, and other animals can also carry human pathogens and deposit them in soil, on the soil surface, or in water (Derlet et al 2004, Derlet and Carlson 2002, Atwill 1995). While the few studies completed suggest that there may be a risk of pack stock transmitting human pathogens into surface water, the severity and extent of actual transmission is unknown. From the low prevalence of pathogens found in pack stock manure and in most Sierra Nevada water sampled, the risk appears to be low.

Section 4.1.2.1: Alternative 1, Cumulative Effects:

The effects of Alternative 1 on cumulative Wilderness water quality outside of grazed areas is unknown. Effectors to water quality within the wilderness include human waste, pack stock waste, human products such as soap and shampoo, domestic animal waste, wild animal waste, atmospheric deposition, cattle waste, and in some locations, possibly mine tailings. While there is evidence of increased coliform and bacteria below heavily used pack stock areas, there is also increased coliform in areas with little to no pack stock use, and no coliform found in areas with high levels of pack stock use. No studies have directly correlated heavy pack stock use with water contamination, although IDT

observations of pack stock defecating directly in water suggests that pack stock manure does enter water, and could have negative effects to water quality. What is known is that one or a combination of the above listed effectors has increased nutrient levels across the Sierra Nevada, and that there are levels of human pathogens and other bacteria in some lakes capable of affecting human health. Pack stock and the clients supported by commercial pack stock likely add some fraction of the contaminants to surface water throughout the AA/JM Wildernesses, but the degree of their contribution is unknown.

The concern about campsites in the Hilton Creek area is that camps are located too close to surface water. In the Wilderness Plan, campsites are required to be 100 feet from surface water, unless topography precludes this distance, and in no case should the sites be less than 50 feet from surface water. As stated on page III-33, "Table 5 in Appendix B displays the summaries of BMPEP protocol campsite results by analysis unit." In that table, it shows that of the 10 commercial pack station identified sites in the Hilton Lakes Analysis Unit, six are within 100 feet of water and six are contributing sediment to water.

In the Hilton Creek area, two commercial pack station operators identified a combined 61 campsites for requested use. Six of these sites were along Hilton Creek adjacent to Davis Lakes. It was assumed that the sites requested by commercial pack stations were used at some point by the commercial pack stations, and therefore the effects were assumed to be from groups using commercial pack stock. It is not stated whether the picket lines are less than 100 feet from the lake in the Hilton Lakes area, but the BMP protocol measures the distance to water from the edge of the campsite, not from the picket line.

As stated on page III-32 of the DEIS, all sites where BMP compliance was evaluated for pack stock related campsites only, and the sites evaluated were chosen out of the campsites identified by the commercial pack station operators. Campsites were recorded either as stock holding or spot/dunnage sites, and on page III-33, figure 3.1.10 shows how the two types of sites were separated for analysis of water quality effects.

The DEIS includes the number of sites that were found to be within 100 feet of water. On pages III-33 of the DEIS, it refers to analysis-unit specific BMP results in Table 5, Appendix B. In that table, it shows that out of the 163 sites analyzed for BMP implementation, 91 are within 100 feet from water. It also shows that 63 are contributing sediment to water. The location of the sites is described in more detail in hydrology portion of the Geographic Unit sections of Chapter 3, where site specific information is included.

The Forest Service does not have data for the amount of use at each campsite, so it was not possible to determine whether the campsite use levels affect the soil and hydrologic impacts. Through use information from the commercial pack stock operators and observations in the field, the IDT was able to determine whether a site was a stock holding site or a spot/dunnage site. Figure 3.1.10 shows that there was a greater percentage of stock holding camps with water quality impacts than spot/dunnage sites, especially with the sites 50-100 feet from water. The IDT assumed that stock holding camps were more likely to cause impacts to water quality because they are generally larger in size and therefore cause more surface runoff than smaller sites (p. III-34). breaks down soil structure.

To clarify the location of campsites where BMP analyses were completed, the Forest Service included a table in the FEIS project record with campsite locations and BMP results, referred to in Chapter 3, Hydrology Section, Campsites subheading. A map showing BMP locations is also

included in the project record, referred to in Chapter 3 in the FEIS. For clarification about campsite locations, in the FEIS the camp at the junction of Hopkins Creek and Mono Creek is not referred to as Bench Camp, but as the Camp at the junction of Hopkins and Mono Creeks.

**Public Concern #268:** *On page III-99 the Forest Service doesn't adequately describe the campsites in the Graveyard AU. Did the id team go up the Goodale Pass Trail? There are multiple large hiker camps alongside of the creek and on the trail.*

*Where is the Bench Camp they refer to? Their assessment is wrong in the second to last paragraph. The camps they refer to is called the Bench Camp...never have been.*

*The picket lines are placed at the direction of the Forest Service. Easy to rectify by moving. What is substantial amounts of sediment?*

*Many sites along Mono Creek are located less than 100 feet from creek. But, they are from hikers. Not stock.*

**Response:** The IDT did hike the Goodale Pass trail, and observed low campsite densities, as described on page III-99. The IDT was focused on effects of pack stock use, and therefore did not specifically visit campsites unless they were requested by commercial pack stock.

Bench Camp, as stated on page III-98, is at the confluence of Hopkins and Mono Creek. In the FEIS, it is referred to as "the camp at the confluence of Hopkins and Mono Creek." The name "Bench Camp" is not used.

The picket lines, as you suggest, would be moved over 100 feet from water (or far enough to meet BMPs) under all action Alternatives, as required in the Wilderness Plan.

"Substantial" amounts of sediment is not a quantifiable description. Here, it suggests that sediment was being observed entering water in visible quantities, outside the range of normal sedimentation.

The Mono Creek campsite discussion was changed in the FEIS to the following:

Of the packstock related campsites evaluated for BMP compliance in the Fourth Recess AU, 40% are contributing sediment to water. One of these sites, at the confluence of Hopkins and Mono Creeks, is one of the campsites of highest concern in the project area. The stockholding site is within 10 feet of a stream, with substantial amounts of sediment were observed entering the stream from the site. Of the four pack stock holding or spot/dunnage sites along Mono Creek analyzed for compliance with BMPs, all are located less than 100 feet from the creek and can contribute sediment to the creek during rainfall or snowmelt. An unknown number of sites that are predominantly used by backpackers are also located within 100 feet of Mono Creek. Although many of these sites exist, they tend to be smaller and individually contribute less sediment into Mono Creek.

**Public Concern #269:** *III-99-Absolute lie that there are many stock campsites within 100 ft of water.*

**Response:** The language in the FEIS was clarified. The DEIS read:

While a number of camps are located less than 100 feet from water, and social trails associated with the camps are contributing sediment to the lakes, campsites are generally not causing water quality problems or excessive soil productivity degradation." [regarding Pioneer Basin campsites].

The FEIS reads,



While a number of camps are located less than 100 feet from water, some are hiker related and some are pack stock related. Three commercial pack stock-related spot/dunnage sites were evaluated, and two were found to be less than 100 feet from water. These sites appear to be contributing minor volumes of sediment into surface water, but campsites are generally not causing water quality problems or excessive soil productivity degradation.

## Soils/Hydrology, Comments on Chapter 4

**Public Concern #270:** *Chapter 4.1.2. The comment about pack stock manure contained pathogens capable of causing human disease implies that pack stock manure is causing problems. Their study is misleading and their paper is not the best way to address the public health concerns of livestock in the wilderness.*

*The general public and decision makers can make better management decisions with appropriate public health data.*

*It is unsettling that the Forest Service didn't research the subject better and include citations that actually suggest the relative risk of people getting sick from manure from horses and mules.*

*This EIS should address water quality issues. The real danger is from the amount of people, where they camp and where they defecate. Commercial outfitters typically use pit toilets and bury the manure where appropriate. Probably the worst offender affecting water quality is day users of the wilderness. Why doesn't the Forest Service reduce day users and encourage better education to eliminate water pollution.*

**Response:** See response to Public Concerns #245 and #246.

**Public Concern #271:** *Chapter IV-102: Third Recess Meadows always had commercial pack grazing. They state little grazing from 2001 to 2003 and in 2004 to 150 nights. The records of Rock Creek Pack Station bear little resemblance to what is being reported to the EIS. Someone lost the cards?*

*Before going to the final EIS we first should look at what data the Forest Service is using and attempt to get a proper number and where the stock is grazing.*

**Response:** The DEIS (and the FEIS) disclose the best information available on past grazing in the wilderness areas. Grazing numbers will be verified for the Final EIS.

**Public Concern #272:** *Chapter IV-117 The last paragraph doesn't make sense. Use is less now than ever. Look at use over the last 25 years. There has been considerable management of the area and in this section they mention adverse cumulative effects from campsite use. Elsewhere in the document on the affected environment on Fish Creek there are opposite claims.*

*All alternative 2 does is give McGee Creek and Mammoth Lakes the right to control all of Fish Creek and eliminate Rock Creek and Red's Meadow Pack Stations from using the area.*

*This document does a very poor job of looking at cumulative effects from multiple pack stations. Where is the data? Where is the analysis through time that show what the impact is of multiple operators? Alternative 2 doesn't improve the environment. There is substantial regulations and the major effect of Alternative 2 is that because you can't graze, or stay in camps on the John Muir Trail there will be a lack of opportunity of people to travel the John Muir Trail and end up at Fish Creek. It has nothing to do with more regulations of campsites, etc.*

**Response:** The last paragraph on page IV-117 reads,

Overall, the risk of adverse cumulative effects would be minor, except in the Upper Fish Creek, Silver Divide, Cascade Valley and Purple Bench Analysis Units in the Fish/Convict/ McGee GU. In these areas, it appears that recent commercial pack stock use has contributed to moderate intensity adverse cumulative effects from campsite use, commercial pack stock use of trails, and moderate to heavy grazing in meadows. These effects are also likely connected to historical cattle sheep and packstock grazing, non-commercial pack stock users, and hikers, the commercial pack stock also appear to have contributed. The more stringent management proposed under Alternative 2 in this area has the potential to reduce adverse cumulative effects to soil and water resources.

In the FEIS, a statement has been added to the end of the paragraph.

....although some would likely remain over the short term. In the long term, the commercial pack stock related impacts would likely be reduced due to a reduction in grazing in meadows with current moderate to severe hydrologic function alteration and functional at-risk streams.

This statement attempted to clarify the intent of the paragraph, that commercial pack stock effects occur currently, as a result current use combined with past uses, and that while some of these effects will continue in the short-term, in the long term there should be improvements. Throughout the physical environment section, Chapter 4, there is consistency in treatment of Fish Creek, as the area with the most widespread soil and hydrology impacts that can be at least partially attributable to recent commercial pack stock use.

This document does not differentiate between effects of different pack station operations, but combines all pack station when looking at current conditions and predicting effects under Alternatives. Therefore, it does look at cumulative effects of different operators.

Alternative 2 will limit grazing in the Fish Creek watershed, and will therefore affect commercial pack stock operations. The analysis of effects to operations can be found on pages IV – 74 to 77.

**Public Concern #273:** *IV-403. Hilton Analysis has lots of overnight commercial pack stock. Hundreds of animal nights per year.*

**Response:** The statement that “there is little no overnight commercial pack stock use” intended to show that there was little holding of stock overnight within the Hilton Lakes Basin. The forest was using stock grazing numbers, with a high reported of 42 stock nights, and no grazing in the other years. However, the forest does not have data about overnight holding of pack stock without grazing. This sentence is omitted in the FEIS, and only stock nights of grazing are discussed.

**Public Concern #274:** *IV-409—Under Alternative 3 you state there are no limits on traveling trips. I don't think this is correct?*

*We disagree that Mono Creek Corridor will have grazing closed. And, we disagree with the analysis that there is excessive sediment of dirt going into surface water.*

**Response:** The sentence on page IV-409 of the DEIS that stated, “Under Alternative 3, there are no limits on traveling trips” was clarified in the FEIS. It was changed to, “Under Alternative 3, there are no specific limits on the number of traveling trips that could occur. The number of traveling trips is only limited by the number of stock at each pack station and trailhead quotas.”

Throughout the Mono Creek Corridor, up to 323 stock nights could be used annually, as reported in Table 2.4, p. II-146. The area would not be closed to grazing, although some specific meadows, such as the meadow at the junction of Hopkins and Mono Creeks, would be closed to grazing or have limited use allowed. The grazing in the corridor itself would be reduced from a high around 520. There would also be over 500 stock nights allowed in canyons tributary to Mono Creek, including Second Recess and the Hopkins Creek Corridor.

Sediment was observed entering the water from campsites during a rainstorm in summer 2003, along Mono Creek. According to Best Management Practices, sediment or other substances should not enter water from campsites or other uses. Therefore, the sediment observed entering the water is excessive.

## Wildlife

**Public Concern #275:** *Pack stock groups are drawing bears. Since you opened up the Davis Lake areas (above Thousand Island Lake) to pack stock groups the bears are now inhabitants. I have backpacked to Davis Lakes for over 30 years and never encountered a bear until two years. (response # 220)*

**Response:** The wilderness manager for the Rush Creek area has not received any bear problem complaints at Davis Lake. The commercial pack stock camp has been present since 1994. Davis Lake area is suitable bear habitat and therefore it is logical bears would use that area and may have in fact become more abundant, however we have no data to show that is the case. Improper food storage typically shifts bear movements in wilderness and non-wilderness alike where bears could be perceived as being drawn to an area. The Forest Service requires the use of proper food storage methods of all wilderness users in Rush Creek to prevent bears from being “drawn” into the area.

**Public Concern #276:** *The Forest Service should consult with U.S. Fish and Wildlife Service on any threatened or endangered species in the Wilderness areas. We have previously provided information on effects to listed and proposed for listing species. (response # 196)*

**Response:** The U. S. Fish and Wildlife Service has requested that we only consult on the final EIS preferred alternative. This consultation is completed.

**Public Concern #277:** *Aquatic Biodiversity Management Plan objectives set by the Department for areas in the Big Pine, Mt. Tom, Bishop, and Middle Fork of the San Joaquin watersheds are in conflict or may be in conflict with pack stock holding, dunnage, and camping areas proposed in some of the alternatives. Most pack stock destinations are at or near waters that are managed for recreational angling rather than fishless. In addition, restoration areas may require conservative management to protect sensitive species and their habitats, for example from trampling or lower water quality. Due to general descriptions of existing or proposed stock holding areas, camps, and dunnage locations in the DEIS, the Department suggests meeting with the USFS to determine potential conflicts or impacts with the Department's proposed and existing restoration and resource areas. (response # 238)*

**Response:** The Forest Service met with the Department to discuss this issue on July 20, 2005.

**Public Concern #278:** *The alternatives (except for Alternative 5) do not provide for the future viability of wildlife in the wildernesses. They do not even protect the habitat of endangered*



*species as required by the Endangered Species Act. In Alternatives 1, 2, 3, and 4, outcomes for wildlife viability cannot be predicted. Alternative 5 offers full protection for all meadows and thus eliminates potential adverse effects for ground nesting birds that frequent meadows such as the willow flycatcher. Under Alternatives 1-4, it is possible for stock to intrude into suitable unoccupied willow flycatcher meadow habitat and even into occupied habitat.*

*Meadow dependent species, especially amphibians are most obviously threatened by the continuation of pack stock grazing. None of the alternatives except for Alternative 5 materially increases the level of protection accorded endangered amphibians such as the Yosemite Toad and Mountain yellow-legged frog. (response # 392)*

**Response:** The DEIS concluded that based on the analysis there would be no adverse effects of any alternative on any Federally listed threatened, endangered or proposed species or their habitat. The DEIS analysis also concluded as well that stock use of meadows under Alternatives 1 through 4 would not adversely affect the viability of riparian or meadow edge MIS bird guilds or the yellow warbler across the wilderness analysis area, or the willow flycatcher that nests in shrubs. The DEIS noted no willow flycatchers are known to utilize the wilderness meadows for nesting at this time. The critical area 5% maximum trampling standard for key habitats in meadows in Alternatives 2 through 4 is designed to protect Forest Service sensitive amphibian habitat for the Yosemite toad and mountain yellow-legged frog. The Yosemite toad and the mountain yellow-legged frog are federal candidates for listing but have not been listed as either threatened or endangered.

**Public Concern #279:** *Removing pack stock from the wilderness would guarantee nearly completely undisturbed habitat for the Yosemite toad. In contrast, the other alternatives consider only a single survival factor – protection of Yosemite toad breeding sites.*

*The DEIS discusses at length the consequences of pack stock grazing areas overlapping with Yosemite toad breeding sites. There are other threats to the toad in connection with pack stock meadow grazing. Among these are loss of breeding and rearing sites due to impaired hydrologic function; silting of pools caused by erosion in meadows and along trails; trampling of vegetation and disturbance of insect prey habitat; and isolation of toad populations to a single meadow or meadow complex because of topography changes. Some of these pack stock grazing consequences are mentioned in the DEIS, but the alternatives do not provide mitigation measures.*

*Substantial pack stock signs have been observed at breeding sites that were not identified for pack stock grazing. This raises the question as to how much unrecorded overlap is occurring.*

*Alternative 1 clearly threatens Yosemite toad viability.*

*Provisions in Alternatives 2 and 3 (including the 5% disturbance limitation) is an improvement over the essentially unregulated conditions of Alternative 1, but it does not offer real protection for the toad.*

*Since in general the effects of pack stock meadow use are not really understood, no meadow should be considered suitable for pack stock grazing from a wildlife conservation standpoint. (response # 392)*

**Response:** The 2004 Yosemite toad monitoring study as well as numerous interdisciplinary field trips across the AA/LM Wildernesses from 2001 through 2004 only documented 1 meadow

not identified as a grazing area (DEIS, Chapter 4 page 159) where substantive pack stock trampling impacts were noted at a Yosemite toad breeding pool.

The analysis compares the various alternatives and discloses the unknowns and the uncertainty related to the continuation of commercial pack stock grazing and use of meadows inhabited by Yosemite toads. It also notes that livestock grazing has been occurring in such meadows in the wilderness and as well as livestock allotments outside of wilderness and on a number of other Forests, and Yosemite toads continue to occupy those habitats (Chapter 4, page 157). Given the uncertain aspect of grazing effects on the toad and its habitat, the fact that toads have persisted for many years in grazed areas, as well as the implementation of a Regional study to assess the effects of grazing it is reasonable to allow the continuation of grazing with management measures. This is the logic behind the determination in the Biological Evaluation that individual toads may be affected however the viability of the species would be maintained.

**Public Concern #280:** *EPA is concerned with the potential impacts to associated aquatic-dependent wildlife such as the Yosemite toad. Potential impacts to Yosemite toad are of specific concern because the U.S. Fish and Wildlife Service has concluded that the Yosemite toad may warrant protection under the Endangered Species Act. More than 90% of Yosemite toad habitat occurs within Forest Service wilderness areas and National Park Service lands, especially around Yosemite National Park. Fifty-eight (58) meadow areas identified as suitable for commercial pack stock grazing under Alternative 2 would overlap Yosemite toad breeding areas and could result in trampling and chiseling of Yosemite toad breeding pool habitats (p. IV-167). We recommend the Forest Service exclude stock from standing water and saturated soils in wet meadows and associated streams and springs occupied by the Yosemite toad during their breeding and rearing season. The FEIS should include management measures and a commitment to minimize potential impacts to Yosemite toads and their critical habitat. (response # 427)*

**Response:** The recommendation is noted. The 5% critical area standard in Alternatives 2 through 4 that includes Yosemite toad breeding areas addresses this concern.

**Public Concern #281:** *III-100: The DEIS should disclose that there are a lot of people who steal and collect Goshawks. (response # 275)*

**Response:** The DEIS Chapter 4, page 179 acknowledges the falconry take of goshawk in the cumulative effects section.

**Public Concern #282:** *Wildlife Chapter IV-141. #3. Cattle and Horse graze significantly different. Don't presume to extrapolate from cattle for horses. They graze differently, they graze different plants and they travel totally different. There are many studies on grazing of horses and their interrelationship with grazing. I would suggest you could extrapolate from horse studies to commercial horse studies. The difference between horses and commercial horses is not that much different.*

*There is quite a bit in the literature about wild horse and the relationships with wildlife. I would be glad to share my literature with the Forest Service. (response # 275)*

**Response:** We believe the extrapolation of livestock grazing studies is appropriate to assess the impacts of commercial pack stock grazing impacts on wildlife habitat. The extrapolation is appropriate since the analysis focuses on the cropping of herbaceous and woody vegetation at various utilization levels as well as trampling and chiseling impacts irrespective of the type of

animal. The Forest Service would appreciate any information you could share concerning horse grazing studies specific to effects on wildlife habitat.

**Public Concern #283:** *Chapter IV-142. Again, they assume Baxter Pass will be closed. The Forest Service said in 2001 that Baxter Pass would be available on a case by case basis. Now, here is closed.*

*This is a perfect example of how the Inyo National Forest publicly states one management objective and then implants another. (response # 275)*

**Response:** Alternative 1 considered maintaining the trail as suitable for commercial stock on a case by case basis. Your comment will be fully considered in the development of the Final EIS adopted alternative.

**Public Concern #284:** *Page IV-177—In the analysis of Goshawks there is no discussion about people collecting the young birds. (response # 275)*

**Response:** The DEIS Chapter 4, page 179 acknowledges the falconry take of goshawk in the cumulative effects section.

## Vegetation

### Sensitive Plant/Weeds

**Public Concern #285:** *All (commercial) pack animal users should be required to utilize certified-weed-free feed if traveling in/through areas where utilization of natural vegetation might have negative impacts on the natural ecosystems. (response # 301)*

**Response:** See Chapter 3, Weeds. SNFPA (2004) directs that use of weed free hay and straw be encouraged and that a program for use will be phased in as certified weed free products become available. An MOU among California agencies is currently in place to develop a weed free forage program, but the very limited availability of certified weed free hay and straw does not support requiring it in particular areas of the state as yet.

### Grazing Resources

**Public Concern #286:** *Grazing zones and their rotation create problems related to the management of stock. Stock are creatures of habit and have a memory of grazing areas. There would be difficulty in rotating these animals from familiar grazing areas. This is not to say that rotation away from specific areas may not be warranted due to specific conditions. However, we believe that grazing should be consistent with traditional patterns unless contra-indicated by specific meadow conditions. We believe that the grazing provisions of February 2005 MOU should be adopted.*

*We believe that meadow management should be based upon long term monitoring with identified baselines and standards for measurement of meadow health. If it is determined that a meadow is in decline, the cause of that decline should be identified before a management decision is made to exclude commercial pack stock as a "solution." It is not appropriate to penalize pack operators unless it is definitively determined that their activities are the cause of resource decline. (response # 325)*



**Response:** Grazing Zones are based on areas where the packers indicated that pack stock have actually grazed, so they should reflect the traditional patterns (see Common Management Direction to Alternatives 2-4, Commercial Packstock Grazing in Chapter II). Within the grazing zones “key areas” have been identified. Key areas are areas of traditional grazing by packstock and or areas of importance for monitoring. This monitoring will provide the information needed for adaptive management and flexibility to move use in response to compliance with applicable standards and to help progress toward desired long-term trends. Rotational grazing is only proposed in the DEIS in a few limited places (see the discussion of Rush Creek, and Hilgard/Rosemary in Chapter II and Chapter III).

The February 2005 MOU only addresses opportunities to validate site-specific grazing start dates and contains no other grazing provisions (see 2005 MOU). Grazing implementation is as directed by the decision in the referenced Wilderness Plan Record of Decision (Inyo and Sierra National Forests, April 2001). This decision is to: establish grazing utilization standards; adopt range readiness standards; establish commercial packstock forage use through special use permits; limit stream bank trampling and chiseling to less than 20%; include conditions in permits requiring operators to be involved in monitoring and to cease using meadows when grazing standards are reached; and for a full closure of meadows to all packstock grazing for the following season when over utilization of vegetation has occurred (see the Wilderness Plan ROD, page pp 4-5 and 16, the Packstock Management Guide, Appendix G, and Appendix A, relevant Laws, Policies, and Regulations). This analysis collects and interprets the information needed to implement the identified Wilderness Plan management direction.

Historical impacts and related meadow problems are discussed in Chapter III (see Grazing Operations, Meadows, and Hydrologic Function sections in Chapter III, and especially the Grazing Resources sections of the Ansel Adams West and Mono Creek/Rock Creek geographic areas. Additional descriptions of historical impacts and current conditions is found in the 2001 Wilderness Plan (Inyo and Sierra National Forests, 2001) and the Sierra Nevada Forest Plan Amendment (USFS, Pacific Southwest Region, 2004) and is referenced rather than duplicated in this EIS).

Today’s management emphasis is on assessing current conditions and desired conditions and then identifying needed changes in those factors, including stock use, contributing to current conditions being inconsistent with desired conditions. Possible management practices, and or alternative actions, are then identified to accomplish the needed changes. In some cases packstock use was not singled out as the sole factor resulting in unstable or degraded conditions. However once a site is damaged or becomes unstable continued grazing related impacts of the degraded or unstable system could delay or prevent recovery (see the discussions of Meadows, Soils, and Hydrological Function in the Physical Environment sections of Chapter IV and the discussion of Assumptions About Effects in the Grazing Resources section of Chapter IV).

The Wilderness Plan Monitoring Framework calls for long-term monitoring of ecological state and transition at key benchmarks (Wilderness Plan pages 37-39, and Appendix G, Pack Stock Management Guide). There is Management Direction in the Wilderness Plan to prohibit or mitigate ground disturbing activities that adversely affect hydrologic processes,” “develop measures to protect bogs and fens,” “modify or suspend grazing based on existing conditions.” There is no management direction to attempt to isolate one cause as the only or the primary cause before implementing a possible management practice (see the Commercial Packstock

Grazing section of Chapter II, as well as the associated referenced pages in the Wilderness Plan, pages 23-26, and the Wilderness Plan Stock Management Appendix, Appendix G).

**Public Concern #287:** *Grazing issues can be mitigated among packers who are already concerned with enhancing backcountry resources. (response #form letter A)*

**Response:** Grazing issues can indeed be mitigated among packers who are already concerned with enhancing backcountry resources. The process for this to occur is site-specific implementation of applicable Management Direction as directed by Forest Service Line Officers and facilitated by Forest Service permit administrators through the Special Use Permit process (see the paragraph on Adaptive Management in the Commercial Packstock Grazing section of Chapter II).

**Public Concern #288:** *Given that hydrological function is "impaired in many areas" and "These conditions are of significant concern, and indicate that use is occurring each year before soils ...are dry enough..." (DEIS, III-48), current grazing start dates are inadequate. The Forest Service needs to adopt grazing start dates that prevent such impacts. (response #form letter G)*

**Response:** Changes in the grazing start date management direction are outside the scope of this analysis. Grazing start dates are implemented as directed by the Wilderness Plan Record of Decision based on implementing the existing direction in the 2001 Wilderness Plan, as described in Appendix G, Pack Stock Management Guide (Inyo and Sierra National Forests, 2001). Basing the grazing start-dates on elevation and interpretation of snow conditions, as described in the Pack Stock Management Guide, is the most efficient given current time and funding constraints. This process and schedule was developed in response to the packers need to have grazing start date information in late winter to early spring for the purposes of trip planning and booking. The Pack Stock Management Guide states "...timely posting of grazing start dates, well in advance of the grazing season, will allow commercial operators and visitors to make trip itineraries with some level of certainty on where and when forage will be available in the wilderness..." (Wilderness Plan, Appendix G, page 6). The start dates are posted, that is notification is provided in letter to the packers and made available to the public, according to a schedule in the Pack management Guide.

The challenge facing Forest Staff is to provide the grazing start date information "well in advance of the grazing season" in response to the needs of the packers and to also comply with management direction in the Wilderness Plan and the Sierra Nevada Forest Plan Amendment protect the riparian resources and special aquatic features. Part of the compromise that must be accepted is if the packers need an early date for their trip planning that date must also be conservative to prevent impacts and in some instances the date will fail to adequately protect the resource unless the packers also accept responsibility for monitoring and complying with range readiness criteria as the summer progresses.

Additional site-specific determinations may be made if time and funding allow for the necessary field inspections (see the Commercial Packstock Grazing section of Chapter II, the Wilderness Plan pages 23-26, the Pack Stock Management Guide, Appendix G, and the 2005 MOU). The Wilderness Plan Record of Decision states that the Forests will require commercial packers to monitor grazing conditions, including range readiness (ROD, pages 5 and 16) which is intended to help ensure timely and accurate information on range conditions.



**Public Concern #289:** *The proposed grazing management scheme will not work. How can you say that an area is “closed” to grazing if an immediately adjacent area is “open” to grazing? Stock animals do not read the rules, and will drift freely from the open areas into the closed areas. The Forest Service does not have sufficient staff to monitor or enforce such an obviously impractical scheme. The result would be significant trampling and grazing impacts in the supposedly closed areas. (response # form letter G)*

**Response:** Meadows with critical areas will be identified for the packers in the operating plan. The packer will work with the permit administrator and range personnel to determine an effective way to avoid the critical areas (see the Commercial Packstock Grazing section of Chapter II, the referenced Wilderness Plan pages 23-26, the referenced Wilderness Plan Stock Management Appendix, Appendix G). It will then be the responsibility of the individual packer to ensure that the wranglers conducting individual pack trips implement the planned management at specific sites.

As is described in the section on Common Management Direction to Alternatives 2-4 (see Commercial Packstock Grazing in Chapter II) the on-site wranglers will be expected to manage the stock to avoid stock entry into these critical areas. However zero tolerance is neither possible nor necessary in a natural setting, therefore a slight amount of inadvertent entry and impacts (the 5% levels) will be tolerated (see Commercial Packstock Grazing sections by Alternative in Chapter II). This should give the District Ranges, permit administrators and permittees the flexibility needed to respond to site-specific conditions and implement grazing management to protect critical areas. Methods for avoiding critical areas may include but are not limited to: temporary fencing; using a bell-mare; having animals under direct wrangler control while grazing; packing feed; or others that packers may request and District Rangers may approve.

Critical areas where negative impacts have been observed will also be given a high priority for development of site specific management plans and monitoring (See Alternative 6/Appendix).

If avoiding critical areas was considered highly unlikely because of the intermingled nature of the meadow/wetland mosaic, the meadow was not considered suitable for grazing (see the Commercial Packstock Grazing section of Chapter II, and the referenced Wilderness Plan Stock Management Guide, Appendix G, page G-11, Table 2-4 Grazing Recommendations by Alternative, and the Study Plan).

An important tool to help keep grazing use and related impacts within standards is to set a conservative stocking rate for the grazing zone and then to adjust that stocking rate up or down based on monitoring and analysis of compliance with applicable standards as well as on resource condition and trend. The initial estimates of available forage, given in stock nights, are intended as guidelines for permit administrators and packers. Stock nights are based on the area (acres) of a key area meadow where grazing can occur, considering suitability, range readiness and resource conditions as described in the.

The identification of key areas and the process for estimating the stock nights of available forage are based on standard range protocols as described in the Regional Rangeland Analysis and Planning Guide (see the Commercial Packstock Grazing section of Chapter II, as well as the associated referenced pages in the Wilderness Plan, pages 23-26, the referenced Regional Rangeland Analysis and Planning Guide, the Wilderness Plan Stock Management Appendix, Appendix G, and the Study Plan). Implementation of the Wilderness Plan Record of Decision direction (see the ROD, top of page 5 and bottom of page 16) to require the permittees to be



involved in the monitoring of grazing conditions is intended to help with compliance in a era of staffing shortages.

**Public Concern #290:** *At IV-140, the DEIS states, "The Science Review acknowledges that the available literature is replete with statements about the probable effects of grazing, many of them observational or anecdotal, but rarely is there controlled studies from which to accurately assess different levels of grazing. Most studies refer to heavy grazing without actual forage use quantification by cattle or sheep, and do not examine moderate grazing intensities that are proposed in this EIS." Again, pack stock users have modified their methods to protect grazing areas, which are important to their livelihood, and again there is less stock grazing now than in years past. Additionally, horses and mules graze differently than cattle and sheep since they do not pull out the grasses by the roots and they favor the tops of the grasses. Further, the meadow monitoring methods used by the Forest Service are quasi-scientific and as such are subjective and can, and indeed are (as admitted to me by a Forest Service employee) slanted to fit the anti-pack stock bias of the person doing the monitoring.*

*Volunteer groups, as well as Commercial groups, help monitor the fences in the meadows. If you would put more people in the field this topic would not be such a secret in your assessment of stock use and meadows. (response # 357)*

**Response:** The statement quoted is from Diaz, (1999) as quoted in the Wildlife section of Chapter IV. This analysis uses the best available literature, including some as discussed, acknowledges that discussion by Diaz, and also uses and cites other more recent available scientific literature. Including this quote indicates that the interdisciplinary team used the best available literature, including, discussing, and considering any available critiques of the literature, as a part of this analysis. (see Literature Cited, Appendix C).

In addition to the research discussed by Diaz, research considered and cited includes the most recent research specific to packstock use in similar, and adjacent, ecological settings. An example of this is the 2004 Journal of Range Management article by D. N. Cole, J. W. Van Wagendonk, M. P. McClaran, P. E. Moore, and N. K. McDougald. *Response of mountain meadows to grazing by recreational stock* (see Literature Cited, Appendix C).

The interdisciplinary team is aware of and incorporated instances where packstock users have modified practices, (such as is discussed relative to Alger Lakes, Hilgard, and Rosemarie Meadows in the Grazing Resources sections of Chapter III). The EIS also discusses historical changes in grazing. This comment gives no specific additional examples of how or where pack stock users have modified their methods so it is not possible to respond to the comment other than to refer the reader to the existing discussions in Chapter III of the EIS. The historical trends in livestock use are discussed in the EIS and were considered by the interdisciplinary team during the analysis (see the Wilderness Scale, Grazing Operations, Historical Visitor Use discussions in Chapter III, and the referenced documents including Forest Plans, the 2001 Wilderness Plan, and the Sierra Nevada Forest Plan Amendment of 2004).

The use of grazing related research irrespective of the type of animal is appropriate; especially so since in this analysis the concern under discussion is often the ancillary impacts to grazing such as trampling of critical areas. While cattle and horses may employ different grazing techniques, one animal may lift the head to remove vegetation after biting while the other twists the head for example, the impacts of removal of vegetation and the associated ancillary impacts, such as trampling and fragmenting the sod by animals of similar weights, may still be considered and

discussed. If the author of this comment has any literature related to the differences in grazing methods between equestrian and bovine grazers in addition to that already cited in the Literature Cited Appendix it would be helpful to make that literature available.

The monitoring methods are based on interdisciplinary team implementation of the direction in the Wilderness Plan, the Pack Stock Management Guide, Appendix G, and methods described in the Regional Rangeland Analysis and Planning Guide (see the Study Plan).

The Wilderness Plan direction "...require(s) the permittees to be involved in the monitoring of grazing conditions" (Wilderness Plan FEIS ROD, page 5, 16) and is to "Conduct monitoring of these packstock management guides by wilderness managers" (Wilderness Plan, page 24

**Public Concern #291:** *All of the alternatives reduce grazing without adequate study. There are new standards imposed that essentially eliminate the use that the Wilderness Act was in part created to allow by saving public lands. By eliminating grazing the Service eliminates traveling trips. None of the alternatives explain this is the effect.*

*Grazing should be permitted at historic levels. Packing cubes is not a good alternative. There are site specific measures to solve problems in those areas where grazing is not suitable.*

*Much of the grazing studies done for this EIS were done without sufficient amount of time or manpower assigned to correctly assess the environment. And, the conclusions reflect that inadequacy. A perfect example is the amount of grazing assigned to Quail Meadows. Or, the amount of grazing assigned to the Tamarack area near Dorothy and Kenneth Lake. The best example is of allowing about 20 animal unit nights at Hopkins Meadow Complex in Mono Creek.*

*The only grazing alternative that allows packing to continue is the Alternative 1. Alternatives 2-4 too often reduce grazing to numbers too low to allow use. Rather than assign animal nights, there should be a system at looking long term trends and utilization standards.*

*Unfortunately, using animal nights per meadow is not going to work. It is far better to allow for grazing numbers for a larger geographic region.*

*The Forest Service plans to close Graveyard Meadow....one of the best places in the Sierra to graze. Why? Certainly doesn't explain why.*

*In the Appendix B Tables regarding Bear Creek...most of the grazing are alongside of Meadows and grass alongside of the trail that aren't even included a part of the grazing. And, the whole side of the mountain to Orchid Lake.*

*The entire grazing allocation system is flawed because it just covers certain large patches of meadow. A good percentage of grazing is done outside of these areas. Unfortunately, the Forest Service GIS system is able to incorporate this data.*

*There are lots of grazing areas that aren't being included. This amount of available forage should be considered in assigning grazing AUM's. (response # 275)*

**Response:** This analysis implements the direction in the Wilderness Plan to use the Grazing Response Index methods and forage utilization standards in conjunction with rangeland suitability criteria, range readiness, and recreation strategy objectives to identify the grazing levels and management needed to maintain or reach desired conditions (Wilderness Plan, 2001, page 4, Pack Stock Management Guide, Appendix G, all but especially see pages 3, 6, and 11).



Grazing is allowed throughout the project area. Grazing is reduced or prohibited locally on those specific sites where it is not appropriate due to degraded conditions, the intrinsic inability of the site to reach range readiness, or where the complexity of the arrangement of critical and non-critical areas precludes grazing without a high probability of damage to the critical areas (see the Commercial Packstock Grazing section of Chapter II, Table 2.4, the Wilderness Plan, pages 23-26, the Regional Rangeland Analysis and Planning Guide, the Wilderness Plan Stock Management Appendix, Appendix G, and the Study Plan). How different pack stations will respond and the effects on traveling trips and are discussed in the Operations sections of the consequences chapter (see Chapter IV, Socioeconomics and Operations, Effects to Operations).

Grazing by commercial pack stock is eliminated in Alternative 5. Grazing is not eliminated in Alternatives 1-4 and Alternative 2 – Modified, but is proposed for those sites where it is appropriate and at initial levels estimated to allow for protection and sustainability of other resources at varying levels for different alternatives. The proposed initial stock nights available across the project area vary by alternative based on the alternative-specific management emphasis as described in the alternative descriptions in Chapter II. For analysis purposes grazing use for Alternative 1 is assumed to be similar to the highest recently reported (between 2001 and 2003) which is 5,755 stock nights. The initial estimates for the other Alternatives are: 10,793 stock nights for Alternative 2; 15,023 stock nights for Alternative 3; and 8,778 stock nights for Alternative 4, (see Table 2.4 for site-specific estimates).

According to this analysis levels of use comparable to the recent levels of use will be accommodated at Quail Meadow. Alternatives 2, 3, and 4 propose an initial 48 stock nights available in the Quail Meadow Grazing Zone (Table 2.4). The actual reported use at Quail Meadow was 0 stock nights in 2001, 48 stock nights in 2002, and 31 stock nights in 2003.

The time and manpower devoted to this project may be considered insufficient by some, however this analysis is being accomplished with the time and manpower available and is significantly more than comparable evaluations in other wilderness areas (see the Commercial Packstock Grazing section of Chapter II, Table 2.4, the Wilderness Plan, pages 23-26, the Regional Rangeland Analysis and Planning Guide, the Wilderness Plan Stock Management Appendix, Appendix G, and the Study Plan).

It was necessary to do an extensive and rapid paced assessment to comply with the necessary deadlines and to allow for re-issuance of the Special Use Permits in a timely manner. The Purpose and Need includes: "Proposals for individual pack stock special use permits...through a subsequent NEPA analysis to be completed by 2006" (see Chapter I, Purpose and Need). Planned follow-up studies and adaptive management will be able to adjust the authorized activities based on the results of monitoring (see the Monitoring and Adaptive Management description in Chapter II, section 2.2).

Historical causes of meadow problems and the existing resource conditions, and the identified management needed to move toward desired conditions, including at Graveyard Meadow, Dorothy Lake area, and Hopkins Lake area are discussed in Chapter III (see Grazing Operations, Meadows, and Hydrologic Function sections in Chapter III, and the specific Graveyard discussion in the Mono Creek/Rock Creek, Grazing Resources, section of Chapter III).

The Grazing Zones have been identified to account for larger areas of potential grazing opportunities than were included in the key areas. Grazing Zones and Key Areas are based on areas where the packers indicated that pack stock have actually grazed, so they should reflect the



traditional grazing patterns (see the section on Common Management Direction to Alternatives 2-4, Commercial Packstock Grazing in Chapter II). Smaller “key areas” have been identified within these grazing zones for monitoring. This monitoring will help provide flexibility to move use in response to compliance with applicable standards (see the sections on Adaptive Management in Chapter II). The use of key areas to represent large areas or grazing zones is an established management practice (see Chapter II section 2.2 and the Regional Rangeland Analysis and Planning Guide).

**Public Concern #292:** *The grazing strategies in Alternatives 1-4 raise questions as to whether the limits to be imposed are stated in terms of measurable quantities and the conditions are described with sufficient precision. The capacity (in stock nights) of grazing zones is based on the calculation of suitable area, vegetative productivity, and reported use in the past three years. It is not clear to what extent ecological characteristics and processes in the meadows are taken into consideration at arriving at the capacity estimates.*

*Compliance with the grazing rules requires only that a trend toward desired conditions be shown. The concept of desired condition is itself rather vague and varies depending on the recreation category assigned to the zone. Further, there is no standard method specified (at least not in the DEIS) for detecting trends. In addition, implementation of these strategies requires monitoring and control and herding of stock to keep within guidelines. There is no assurance that the required monitoring and herding will occur.*

*Grazing suitability of meadows is especially troublesome. If this is a meaningful concept, it ought to be defined in terms of objective criteria that are generally accepted. But suitability clearly is not objectively defined here, since the same meadow is classified as suitable in one alternative and is unsuitable in another. (response # 392)*

**Response:** The quantities and conditions used are standard and in common use (see the Sierra Nevada Forest Plan Amendment, the Wilderness Plan, the Pack Stock Management Guide, and the Regional Rangeland Analysis and Planning Guide, as referenced in the EIS and included in the Literature Cited Appendix).

The areas where grazing is prohibited and the total proposed initial stock nights available across the project area do vary. The variation is based on the alternative-specific management emphasis as described in the Alternative descriptions in Chapter IV.

For example: Under Alternative 3 part of the alternative description is to:

“Allow grazing at the utilization, range readiness, inadvertent use/impact critical area 5% standard, and other standards as for Alternative 2 with initial identified stock nights available as for Alternative 2 for areas that are assessed as Fully Functional or Functional at Risk with an upward trend.

- No use will be authorized on key areas determined to be Functional at Risk with a downward trend.”

Under Alternative 4 the emphasis of the alternative becomes progressively more stringent. Suitability for grazing in Alternative 4 is defined as:

“Allow grazing at the utilization, range readiness, inadvertent use/impact critical area 5% standard, and other standards as for Alternative 2 with initial identified stock nights available as

for Alternative 2 for areas that are assessed as Fully Functional or Functional at Risk with an upward trend, with the following exceptions:

- A 30% maximum utilization factor will be set on key species in key areas determined to be Functional at Risk with no apparent trend.
- No use will be authorized on key areas determined to be Functional at Risk with a downward trend.
- No use will be authorized on key areas categorized as having severe alteration of hydrological function.”

It is true that successful management is generally defined as a trend toward desired condition. The social aspect of the desired condition relative to the experiential nature of the wilderness resource varies by recreation category and is the desired condition described in the Recreation Goals and Objectives (Wilderness Plan, Chapter 2, page 16). However the desired condition for the grazing resource is defined in the Recreation Stock Forage Goals and Objectives (Wilderness Plan, Chapter 2, page 58) and does not vary by Recreation Category.

The extensive and rapid data collection methods used in this analysis are based on interdisciplinary team implementation of the direction in the Wilderness Plan, the Pack Stock Management Guide, Appendix G, and standardized Regional methods described in the Regional Rangeland Analysis and Planning Guide (see the Wilderness Plan Pack Stock Management Guide direction on Suitability Determinations and the Study Plan).

The EIS also references the Wilderness Plan, Pack Stock Management Guide, and the Regional Rangeland Analysis and Planning Guide. These documents provide management direction regarding monitoring and details of the monitoring protocols (see Chapter II, 2.2 Common Direction to all Alternatives). The Wilderness Plan Monitoring Framework calls for Long-term monitoring of ecological state and transition at key benchmarks (Wilderness Plan pages 37-39).

The Wilderness Plan direction “...require(s) the permittees to be involved in the monitoring of grazing conditions” (Wilderness Plan FEIS ROD, page 5) and to “Conduct monitoring of these packstock management guides by wilderness managers” (Wilderness Plan, page 24). The Forest Service is also willing to consider any offers of assistance. The Forest Service will continue to place employees in response to annual budgets.

Additional areas were included as not suitable for grazing after the initial proposed action as a result of the ongoing analysis process. Suitability is based on factors determined locally by an interdisciplinary team and these factors may, and should, respond to the locally determined management emphasis factors, including ecological and process factors such as those that resulted in the progressively more stringent alternatives as described above (see also the Wilderness Plan, the Pack Stock Management Guide, the Regional Rangeland Analysis and Planning Guide, and the Study Plan).

The analysis responds to ecological characteristic and processes as it assesses the consequences of implementing progressively more stringent and prohibitive grazing on those sites where it is not appropriate due to degraded conditions, the inability of the site to reach range readiness, or where the complexity of the arrangement of critical and non-critical areas precludes grazing without a high probability of damage to the critical areas (see the Commercial Packstock Grazing section of Chapter II, Table 2.4, the Wilderness Plan, pages 23-26, the Regional Rangeland

Analysis and Planning Guide, the Wilderness Plan Stock Management Appendix, Appendix G, the Study Plan, and the Meadow Rating Criteria and Spreadsheet in the Project Record).

**Public Concern #293:** *Alternative 2 does not protect meadows that contain critical habitat. Designating them as critical does not prevent some degree of trampling and other disturbance. Further, no standard means is prescribed for measuring the extent of damage or limiting damage to 5%, nor is there clear evidence that the 5% figure, if adhered to, will be adequate to prevent further decline in meadow stream function or vegetative conditions. (response # 392)*

**Response:** Alternative 2 includes the same standards for impacts in critical areas as Alternatives 3, 4 and Alternative 2 – Modified (see Chapter 2 – Common Direction to all Alternatives, Common Management Direction to Alternatives 2-4, Commercial Pack Stock Grazing). Grazing is prohibited in Alternative 2, and in Alternatives 3 and 4 as well, where the complexity of the arrangement of critical and non-critical areas precludes grazing without a high probability of damage to the critical areas (see the Commercial Packstock Grazing section of Chapter II, Table 2.4, the Wilderness Plan, pages 23-26, the Regional Rangeland Analysis and Planning Guide, the Wilderness Plan Stock Management Appendix, Appendix G, the Study Plan, and the Meadow Rating Criteria and Spreadsheet in the Project Record).

Zero tolerance is neither possible nor necessary in a natural setting, therefore a slight amount of inadvertent entry and impacts (the 5% levels) will be tolerated (see Commercial Packstock Grazing sections by Alternative in Chapter II). Monitoring, including of 5% trampling impacts, will follow the standard protocols to be used to monitor the other standards, such as 30% or 40% vegetation utilization and 20% stream bank disturbance (see the Wilderness Pack Stock management guide and the Regional Rangeland Analysis and Planning Guide). For critical areas such as Fens or Yosemite Toad habitat the standards and monitoring protocols are being developed and will be implemented as they are developed (see Monitoring Plan).

**Public Concern #294:** *The DEIS clearly shows that Alternative 5 is superior to all other alternatives in terms of effects of alternatives on meadow hydrologic function and expected change in stream functional condition. (response # 392)*

**Response:** This analysis considers more than just the alternative that is superior in terms of effects on meadow hydrologic function and expected change in stream functional condition. The Needs Assessment defines the need for commercial pack stock activities (see the Needs Assessment). The Purpose and Need for Action section of the EIS describes the need to provide further standards and guidelines for commercial pack stock activities (Chapter 1, Purpose and Need). This analysis describes the appropriate mix of actions and the environmental consequences of implementation associated with meeting the identified need.

**Public Concern #295:** *Grazing privileges for commercial packstock should require time- and site- specific advance permits granted in a manner similar to that employed in granting overnight permits, in order to prevent possibly destructive overuse as well as "near range wars [between various commercial packstations]" as reported in the district court trial record. (response # 301)*

**Response:** Specific permit and operating plan issues will be addressed in a subsequent environmental process that issues the permits (see Executive Summary, Issues and Concerns Not Addressed in This Document). This analysis identifies the initial stock nights of available forage and the applicable grazing standards to be applied at specific locations. The location and amount



of available forage will fluctuate annually. Decisions regarding the allocation of that available forage will be made by the environmental process for permit issuance and will be adapted annually by the District Rangers in consultation with the Special Use Permit administrators and individual packers through the Annual Operating Plan process (see Section 2.2 Common Direction to all Alternatives, Common Management Direction to Alternatives 2-4, Commercial Pack Stock Grazing).

**Public Concern #296:** *Grazing start dates need to be determined on a site-specific basis, not elevational. (response # 428)*

**Response:** The decision to implement grazing start dates was made in the Wilderness Plan in 2001. Interdisciplinary team assessments have indicated that the trampling associated with a grazing activity is resulting in more impacts than the grazing itself. The process for predicting and posting the grazing start date is described in the Pack Stock Management Guide (Wilderness Plan, Appendix G, page 7). One of primary reasons a process based on elevation guidelines was developed is that the packers described a need to know the grazing start date in late winter and early spring, before the snow even melts from the meadows. The trip dates need to be published in various bulletins and periodicals early enough for potential client to arrange vacations and book trips in advance. Therefore packers must be able to plan and book trips well before the wilderness sites are accessible in the spring; even before the snow begins to melt in some years. Providing an estimated grazing start date based on an evaluation of snow conditions, anticipated runoff dates, and including considering the effects of elevation is a service the Forest provides to the packers to facilitate the trip planning process.

Site-specific range readiness assessments may be done where time and funding allow. Assessing individual sites and determining a grazing start date for individual sites is possible and would provide a date with a more accurate assessment of conditions. An important consideration is that a site-specific range readiness assessment requires multiple visits to an adequate number of sites to track changes in conditions as the spring weather progresses each year. The range readiness assessment cannot be done faster than the snow melt and runoff process occurs. While individual assessments can be done at a few very locations, overall, given the size and complexity of the project area, it is not possible to provide site-specific assessments to packers in time for them to plan, advertise, and book trips.

**Public Concern #297:** *The proposed grazing management strategy is unrealistic, full of loopholes, and would result in degradation of the wilderness character. Under all alternatives the proposed grazing management scheme would lump suitable and unsuitable areas together into large grazing zones that were delineated based on requested areas for grazing by the commercial pack outfitters. (DEIS at II-3) The grazing zones would include mosaics of wet and dry areas, including unsuitable and even critical habitat areas.*

*All alternatives assume that stock users will avoid stock entry into critical areas and areas identified as unsuitable. This expectation is completely unrealistic. First, stock animals will naturally drift between adjacent or nearby open and closed areas unless their movement is controlled. Second, stock users cannot be expected to control stock movement into closed areas unless it is required.*

*Forest Service representatives indicated during our 5-21-04 meeting that grazing in closed areas would be a citable offense. However, the proposed action contains no such provision. In fact, the proposed action would allow regular drift of stock animals from open areas into closed areas.*

*Even critical and unsuitable areas may be regularly grazed: There would also be an inadvertent level of use of up to 5% ground disturbance allowed in these critical and unsuitable areas. This, too, is arbitrary and completely unrealistic. First, the 5% standard for ground disturbance in critical areas is arbitrary, and would likely be inadequate in many areas. For example, stock animals should be prohibited entirely from entering occupied breeding habitat for Yosemite toads, which have been determined by the USFWS to be warranted for listing as threatened or endangered. Second, the Forest Service does not, and cannot be expected to have sufficient funds to monitor the many critical and unsuitable areas in these remote wildernesses.*

*Rather than drawing the grazing boundaries as requested by commercial permittees, and rather than lumping suitable and non-suitable areas together, the Forest Service should instead identify where grazing is suitable and would not cause significant effects, and limit grazing to those areas only. Site-specific range readiness criteria (i.e., grazing start dates) and stock-night limits should be developed, and stock users should be required (using temporary, portable electric fences, hobbles, or other management techniques) to keep their stock out of closed areas. But, this can only work if grazing in closed areas is a citable offense, and if the Forest Service enforces such a requirement.*

*The drift fences in these wildernesses exist primarily for the convenience of stock users. Most B if not all B of them should be removed.*

*Site-specific and/or area-specific grazing start dates must be established. The 2001 Wilderness Plan and ROD called for grazing start dates to be established. The grazing start dates that have been established are based on elevation. This was done for expediency, and the existing start dates are better than none. However, there are many other factors that necessitate that grazing start dates should be site-specific or area-specific as opposed to elevation-based (i.e., aspect, vegetation type, soil depth, soil type, slope, etc.). The Inyo and Sierra NFs should establish site-specific or area-specific refinements to their elevational grazing start dates (as is done in the adjacent Sequoia and Kings Canyon National Parks).*

*Specific monitoring procedures for grazing must be described and mandated as part of the adaptive management proposal. The so-called adaptive management strategy for grazing does not constitute adaptive management. It is essentially an unscientific loophole that would allow managers to approve administrative changes to the grazing plan based on unspecified monitoring. The monitoring program is not mandatory, and it is undefined and unfunded. There are no objective criteria to guide decisions for making changes to the grazing management scheme, and there is no provision for public involvement or NEPA analysis. Adaptive management is a scientific process, but it appears to be invoked here primarily to allow easy changes to the grazing scheme without public involvement or proper environmental analysis. (response # 196)*

**Response:** Key areas and critical areas will be identified for the packers in the annual operating plans. The packers will work with the permit administrators and District Rangers to determine an effective way to avoid the critical areas (see the Commercial Packstock Grazing section of Chapter II, the referenced Wilderness Plan pages 23-26, the referenced Wilderness Plan Stock Management Appendix, Appendix G). It will then be the responsibility of the packer to ensure that the wranglers conducting individual pack trips implement the planned management at specific sites.



As is described in the section on Common Management Direction to Alternatives 2-4 (see Commercial Packstock Grazing in Chapter II) during each trip the on-site wranglers will be expected to manage the stock to avoid stock entry into these critical areas. Zero tolerance is neither possible nor necessary in a natural setting therefore a slight amount of inadvertent entry and impacts (the 5% levels) will be tolerated (see Commercial Packstock Grazing sections by Alternative in Chapter II). Critical areas where negative impacts have been observed will be given a high priority for development of site-specific management plans and monitoring in subsequent years.

If avoiding critical areas was considered highly unlikely because of the intermingled nature of the meadow/wetland mosaic, the meadow was not considered suitable for grazing (see the Commercial Packstock Grazing section of Chapter II, and the referenced Wilderness Plan Stock Management Guide, Appendix G, page G-11, Table 2-4 Grazing Recommendations by Alternative, and the Study Plan). As suggested, methods for avoiding critical areas may include but are not limited to: temporary fencing; using a bell-mare; having animals under direct wrangler control while grazing; packing feed; or others that packers may request and District Rangers may approve.

An important tool that was used to help keep grazing use and related impacts within standards is to set a conservative stocking rate for the grazing zone and then to adjust that stocking rate up or down based on monitoring and analysis of resource condition and trend. The initial estimates of available forage, given in stock nights, are intended as conservative guidelines for permit administrators and packers. Stock nights are based on the area (acres) of a key area meadow where grazing can occur, considering suitability, range readiness and resource conditions as described in the Pack Stock Management Guide (Wilderness Plan, Appendix G).

The identification of key areas and the process for estimating the stock nights of available forage are based on standard range protocols as described in the Regional Rangeland Analysis and Planning Guide (see the Commercial Packstock Grazing section of Chapter II, as well as the associated referenced pages in the Wilderness Plan, pages 23-26, the referenced Regional Rangeland Analysis and Planning Guide, the Wilderness Plan Stock Management Appendix, Appendix G, and the Study Plan). Implementation of the Wilderness Plan Record of Decision direction (see the ROD, top of page 5) to require the permittees to be involved in the monitoring of grazing conditions will help with the staffing shortages.

The existing drift fences are not retained to accomplish grazing resource objectives, as a drift fence tends to keep stock in a general geographic vicinity without protecting the localized site-specific critical areas. However, the fences have been identified as necessary for operational stock management including for the safety of both the clients and of hikers along the trails (see Operations sections).

**Public Concern #298:** *Under camping limitations only one night grazing per trip in Cascade Valley and Silver Divide analysis mits is allowed. How do you handle a two-way overnight spot trip? The packer and stock remain with the party overnight when they are packed in and the packer goes in the day before the parties' out date to pick them up. That adds up to 2 nights of grazing. Does this put an end to 2-day spot pack trips. Most parties don't appreciate getting out at midnight not to mention the potential dangers of packing out in the dark. (response # 198)*

**Response:** The two-way overnight spot trip scenario described in the comment may be accomplished by packing feed when returning, with mostly empty pack panniers, to pick up the



party. The stock are fed rather than grazing that night and the panniers will then be empty and may be loaded for the trip back to the trailhead. It is important to recognize and take advantage of opportunities to only allow stock to graze when it is truly necessary.

**Public Concern #299:** *We strongly disagree with Grazing Zone concept of management. The alternatives do not tell the public that they are ending the practice of taking pack trips in the Sierra. The Forest Service is selecting a methodology that is easy for the government but denies the public access to the wilderness. Little effort is made to craft a grazing management strategy that allows people to travel up and down the Muir Trail. This is why the Wilderness Act was passed. People wanted somewhere that they could travel for a week to several weeks and not have to see cars and civilization. (response # 275)*

**Response:** Grazing Zones and Key Areas are based on areas where the packers indicated that pack stock have actually grazed, so they should reflect “traditional patterns” (see the section on Common Management Direction to Alternatives 2-4, Commercial Packstock Grazing in Chapter II). Smaller “key areas” have been identified within these grazing zones or areas of traditional grazing by packstock areas of importance for monitoring or resources have been identified, which helps provide adaptive management flexibility to move use in response to monitoring of compliance with applicable standards. Pack trip are not eliminated, but grazing is authorized in locations and at levels that is sustainable. It is important to recognize and take advantage of opportunities to only allow stock to graze when it is truly necessary, and in locations where it is sustainable.

The packers will work with the permit administrators and District Rangers to determine an effective way to allow stock to graze within the grazing zones and avoid the critical areas (see the Commercial Packstock Grazing section of Chapter II, the referenced Wilderness Plan pages 23-26, the referenced Wilderness Plan Stock Management Appendix, Appendix G). It will then be the responsibility of the packer to ensure that the wranglers conducting individual pack trips implement the planned management at specific sites. The packers are encouraged to work with the District Rangers and Permit Administrators to identify stock management techniques that will work for their individual operation. As has been suggested, methods for avoiding critical areas may include but are not limited to: temporary fencing; using a bell-mare; having animals under direct wrangler control while grazing; packing feed; or other methods that packers may request and District Rangers may approve.

**Public Concern #300:** *The Forest Service has to look at a method of allowing grazing in wet areas of meadows and grasslands. This is not production grazing; rather, it is grazing to support recreational use of the wilderness. Standards should be different. At times, the wilderness use will be heavier in some areas to allow people to travel through the Sierra. Congress anticipated this use and did not want to close off the wilderness to people and livestock.*

*Now, when the Forest Service proposes so many restrictive standards....the agency is really closing the wilderness to grazing. This is wrong and the various alternatives don't truthfully point this decision out to the public. (response # 275)*

**Response:** The direction to protect wetlands and special aquatic features is from the Sierra Nevada Forest Plan Amendment (USFS, 2004) and the Wilderness Plan (USFS, 2001), decisions. Pack trips are not eliminated (see Alternative descriptions in Chapter 2). Grazing use is authorized in locations and at levels that is sustainable (see Alternative descriptions in Chapter

2). Uses as commercial pack stock grazing may be authorized as necessary in the direct support of clients and to the extent that it is ensured that human influence does not impede the free play of natural forces or interfere with natural successions in the ecosystems (see FSM 2320). As has been suggested, methods for avoiding critical areas may include but are not limited to: temporary fencing; using a bell-mare; having animals under direct wrangler control while grazing; packing feed; or other methods that packers may request and District Rangers may approve.

The introduction to the Socioeconomic and Operations section of Chapter 4 states: "This section combines the operations and economics sections and discusses the effect of the five alternatives on the regional economy and the operations of the pack stations" (see Chapter 4, section 4.1.1.5). The Socioeconomic and Operations section of the analysis also states "The team concluded that the following operational indicators would effectively measure the differences between alternatives and their effects to commercial pack stock operations" and then goes on to discuss the identified indicators and conclusions (see Chapter 4, Effects to Operations). The conclusions include that for high-complexity operations the change will be from a high percentage of grazing to a substantial increase in packed feed and an increase in site-specific stock management which will also require additional employees (see Chapter 4, Effects to Operations).

## Vegetation, Comments on Chapter 3

**All comments are from response #275**

**Public Concern #301:** *III-101 There is substantial overnight stock use in Hilton. Probably more than any area of the Inyo National Forest.*

*Conclusions of Dorothy Lake fail to address the improvements since cattle and sheep left. The writer mentions the Dorothy Lake Meadow grass is dying in half the meadow. Why? In the entire document, if there was evidence of stock grazing....commercial pack stock would be used to explain the damage. Here, no stock grazing.*

*On the other hand, when there is no grazing by stock...the writer doesn't make a conjecture. The document should mention that there is incredibly vast amounts of good forage in the Tamarack area. And, that the vigor is excellent in spite of heavy past grazing.*

**Response:** The overnight stock use figures used in the grazing resources sections of this analysis were as reported for 2001, 2002, and 2003.

The description of conditions at Dorothy Lake Meadow, as well as at other locations, is a summary of existing conditions as documented on-site by the interdisciplinary team. The historical impacts of stock grazing are acknowledged in the Meadows section of Chapter 3 as well as in the Grazing Resource section. Historical stock impacts, as discussed in these sections are at least as common at Dorothy Lake as elsewhere in the project area.

The Grazing Resource section of the Mono Creek Rock Creek Geographic Area documents a loss of perennial grass and sod in the meadow at the outlet of Dorothy Lake and also documents that elsewhere there is little change from high-seral vegetation except at localized stream crossings. The cause of the loss of perennial grasses is unknown. However, the interdisciplinary team located historical camps, trails, and diversion ditches that were likely from the earlier sheep and pack stock days at the Dorothy Lake outlet meadows (see Chapter III, RockCreek/Mono Creek Geographic Area, section 3.2.1.1, Commercial Pack Station Operations,

section 3.2.1.2 Wilderness, Tamarack). As is documented in the analysis once a site is degraded the effects linger and recovery can take decades (see Chapter III, section 3.1.2.2, Meadows).

**Public Concern #302:** *III-102. Continued lie and mistaken assumption about use at Lower Hopkins Lake. What is meant by current? 1 year, 5 year, 20 year and 50 year? The id team members lack the ability to determine the effects of use from last year or twenty years ago throughout most of the plan. Hopkins Lake is probably the best example.*

*Current use since 2002 has been at Hopkins Creek at the 10,000 ft level. We have had less than a handful of spot and dunnage trips at Hopkins Lake.*

**Response:** Current in this context means concurrent with the time period of this project. There was reported overnight use by commercial operators in Hopkins Basin and Hopkins Meadow during the reporting years used for reported levels of grazing in this analysis, 2001, 2002, and 2003 (Chapter III, Grazing Operations, section 3.1.1). The Commercial Pack Station Operations section of Chapter III (section 3.1.1.1, History and Background) cites data from 1999 to 2003.

**Public Concern #303:** *III-103. The Forest says there is no negative impacts at Kip Camp and no recent reported use. This was one of the most heavily used stock and hiker camps along the John Muir Trail. This document should use this as an example of how much better the Wilderness is than in the 1970's.*

**Response:** No stock use was reported by the commercial operators between 2001 and 2003 at Kip Camp. (see section 3.1.1.1, History and Background). There were no negative current stock related impacts noted at Kip Camp. The presence of standing dead lodgepole pine in saturated soils and debris deposits in the creek at Kip Camp do indicate there may have been a recent historical change in hydrologic conditions.

**Public Concern #304:** *In the DEIS, the Forest Service missed the opportunity to show that in spite of heavy livestock and human use, the wilderness area looks good. There are numerous campsites and areas that should be used to describe the affected environment. Compare and contrast what they were like in the late 70's when the first John Muir Wilderness Management Plan was implemented.*

**Response:** There is a discussion of historical impacts in Chapter III, Hydrology, Meadows (Chapter 3). The analysis states that recent surveys indicate that the vegetative composition of meadow is generally in satisfactory condition as defined by the Wilderness Plan, with some meadows and some locations within meadows still exhibiting an observable change away from desirable, late-seral vegetation (see Chapter 3, Vegetation, Vegetative Composition).

Today's management emphasis is on assessing current conditions and desired conditions and identifying needed changes in those factors, including stock use, contributing to current conditions being inconsistent with desired conditions (see Chapter 2 and the discussions of Meadows, Soils, and Hydrological Function in the Physical Environment sections of Chapter IV and the discussion of Assumptions About Effects in the Grazing Resources section of Chapter IV).

**Public Concern #305:** *III-143 The 2001 grazing use data from Rock Creek is not included in the document. The postcards must have been lost by the Forest.*

*The proper data should be included in any final document.*



**Response:** The overnight stock use figures used in the grazing resources sections of this analysis were as reported for 2001, 2002, and 2003 (see Chapter 3, Grazing operations).

## Vegetation, Comments on Chapter 4

**Public Concern #306:** *IV-419 - The conclusions of Tamarack aren't very good and the whole analysis needs to be redone. Should be more grazing.*

*IV-426 - should permit grazing in Alternative 3 at Tamarak.*

**Response:** Uses such as commercial pack stock grazing may be authorized as necessary in the direct support of clients and to the extent that it is ensured that human influence does not impede the free play of natural forces or interfere with natural successions in the ecosystems (see FSM 2320). Tamarack is close enough to the pack station that it is not truly necessary to graze stock. Stock can easily return to the packstation, or if stock are held overnight for a day ride the next day the stock not needed for the day ride can easily return to the packstation for feed. It is important to recognize and take advantage of opportunities to allow stock to graze when it is truly necessary, and in locations where it is sustainable (see Table 2.4, Grazing Recommendations by Alternative, and the Needs Assessment).

**Public Concern #307:** *IV-427 - The writers miss much of the grazing options and grasslands in the entire Mono Creek area.*

**Response:** Grazing Zones and Key Areas are based on areas where the packers indicated that pack stock have actually grazed, so they should reflect traditional patterns and use levels (see the section on Common Management Direction to Alternatives 2-4, Commercial Packstock Grazing in Chapter II). The areas identified by the packers were used in conjunction with aerial photographs to plan interdisciplinary team assessments. Smaller "key areas" have been identified within these grazing zones or areas of traditional grazing by packstock areas of importance for monitoring or resources have been identified. The key areas and grazing zones helps provide adaptive management flexibility to move use throughout a grazing zone in response to monitoring of compliance with applicable standards. The majority of the Mono Creek area is identified as a grazing zone and is available to be grazed. We have accounted for the majority of the ecologically sustainable grazing options in Mono Creek that are necessary to support the needed operations (see Table 2.4, Grazing Recommendations by Alternative, and the Needs Assessment, and Maps).

## Social and Economics

### Economics

**Public Concern #308:** *The economic analysis should be redone to better reflect the economic contributions of commercial pack stations to the local economy (response #275).*

**Response:** NEPA sets out broad direction and objectives for the treatment of economic issues in an environmental analysis. For example, the CEQ NEPA Implementing Regulations at 40 CFR 1508.8 includes economic and social effects as the effects that should be considered in an environmental analysis. There is no specific direction; however, that mandates what needs to be considered in an economic NEPA analysis. The scale and focus of the economic analysis is tailored to meet the needs of the project and is decided upon by the Responsible Official. For

this project, the appropriate economic analysis is one which includes an examination of the effects of the alternatives on both the regional economy and the operations of the pack stations.

The economics analysis in the EIS utilizes an accepted economic model, the Impact Analysis for Planning (IMPLAN) model. The IMPLAN model that was used in the analysis includes the expected spending of visitors who utilize commercial pack station services. This includes spending on services and goods in the communities around commercial pack stations. The output of the model is labor income and number of jobs that are created by both the spending of visitors directly for the pack stock services and the incidental spending that occurs during the visit. In the Final EIS, the analysis will be clarified to better explain the model and how it provides an evaluation of the economic activity generated by commercial pack stations.

**Public Concern #309:** *The DEIS does a poor job of fully disclosing the effects of additional regulations on the packing industry. (response #275)*

**Response:** The Draft DEIS discloses that there are a number of uncertainties associated with the alternatives and their impact to the pack stations operations. The operations effects analysis discusses the expected effects of the alternatives on the future operations of commercial pack stations. There are a number of uncertainties, however, including some factors that the Forest Service has no control over. To some extent, the services offered by pack stations will be dependent upon on the economy, the public's demand for various services, and the ability of pack stations to attract customers. As to the number of pack stations operating in the future, it is expected that the current number of pack stations will continue to operate into the future. Outside of the NEPA process, there will be a Financial Availability Determination (FAD) made for each pack station. In addition, a separate planning effort will issue the permits for the pack stations. The FAD and the SUP EIS will determine how many pack stations will operate

**Public Concern #310:** *The Forest Service should ensure the viability of pack stations (response #253).*

**Response:** The purpose of the economic effects analysis in the EIS is to disclose the expected effects that the various alternatives on the regional economy as well as the operations of the pack stations. Components of the alternatives that may adversely affect the viability of these operations are identified and disclosed in the environmental document. The Forest Service cannot ensure the viability of commercial pack stations. There are a number of factors that may impact the viability of pack stations, many of which the Forest Service has no control over.

**Public Concern #311:** *The Forest Service should not subsidize the operation of commercial pack stations but should allow the market to decide whether these operations survive. (response # 301)*

**Response:** The market has historically played a role in the viability of commercial pack stations and will continue to influence the viability of these operations for years to come. Some businesses have continued to operate while others have closed or combined with other operations. The market has clearly indicated that there is a demand for these commercial services to operate in the wilderness. It is the job of the Forest Service to determine the appropriate level of commercial service in the wilderness while still protecting the wilderness values of these areas.

**Public Concern #312:** *The Forest Service should acknowledge that most pack stations are in poor financial shape and will be in worst shape in the future. (response # 275)*

**Response:** The current financial condition of commercial pack stations are not fully known and, to some extent, outside the scope of this EIS. The EIS does discuss the expected effects of the alternatives on the future operations of commercial pack stations. A more complete financial accounting of these operations will be done when the permits are issued next year.

**Public Concern #313:** *The Forest Service should not use gross revenue as a method for assessing economic viability. Rather, net revenue figures, along with the profits generated by each operation should be included in the EIS. (response # 275)*

**Response:** The economic analysis in the EIS clearly states the limitations associated with gross revenue figures from commercial pack stations and warns against making any conclusions based on these figures. It is not appropriate to include profit figures in the EIS. There is a permit process that will take place next year that will assess the viability of each pack station before a permit is issued.

**Public Concern #314:** *The Forest Service should better estimate the costs increases of commercial pack stock trips as a result of new regulations.*

**Response:** The DEIS provides the agency's best estimation of how the alternatives will affect the future cost of commercial pack trips. No attempt was made to quantify the change in price for various pack trips.

**Public Concern #315:** *The Forest Service should ensure that commercial packing trips remain affordable to the public. (response #75)*

**Response:** The economics and operations analysis discloses that additional regulations may affect the commercial pack stations and their ability to provide services to the public. As the analysis discusses, one possibility is that the prices of trips may continue to rise. At some point, a large percentage of the population may be priced out of these trips.

There is a disagreement as to the overall effect that new regulations will have on commercial pack stations. The EIS provides the agency's best analysis as to how the various layers of regulations will interact and affect future operations of these businesses. There is a high level of uncertainty, however, and the analysis readily discloses this. Many factors, some of which are outside the control of the Forest Service, affect the profitability and viability of these operations.

**Public Concern #316:** *Additional regulations on pack stations will severely limit their ability to provide service to the public and will adversely affect local economies. (response # 275)*

**Response:** See response to Public Concern # 315

## **Social**

**Public Concern #317:** *The Forest Service should provide a better analysis of the proposed regulations on different ethnic groups and races (response # 275)*

**Response:** The DEIS discusses the effects that may occur to low-income users of commercial pack stock services. As is disclosed in the document, any regulations that increase the price of these trips will likely have greater effects to low-income users of the service.

There is limited data that provides a baseline as to the historical use of commercial services by low-income and minority groups. If, however, overall visitation to the Inyo National Forest is any indication of the racial/ethnic composition of commercial pack stock clients, it is likely that the overwhelming majority of users are white. According to the 2003 Inyo National Visitor Use



Monitoring Results study, 91% of Inyo National Forest visitors are white, while 4.2% identified a Spanish, Hispanic, or Latino ethnicity. Respondents identifying themselves as Black or African American made up .2% of those surveyed. Given the low percentages of non-white visitors to the forest, it is unlikely that any of the alternatives will result in any disparate effects to racial or ethnic groups.

**Public Concern #318:** *Social disagreements and equity issues are not resource concerns and not the reason for this EIS (response # 275).*

**Response:** In addition to the physical environment, an EIS should analyze and disclose the effects of a federal action on the social environment. A portion of the social environment analysis can include public attitudes and opinions of the proposed action. The disclosure of public opinion is one of many factors that a decision maker weighs when making a decision. The analysis simply points out to the decision maker that the issue of commercial pack stock in the wilderness is fairly polarizing for the public with very vocal opponents of this wilderness use balanced with vocal proponents of continued commercial pack stock operations in the wilderness.

### **Health and Human Safety**

**Public Concern #319:** *The NEPA document has not adequately analyzed the impact of commercial pack operators on the human health and safety. (response # 166)*

**Response:** The EIS does consider certain aspects of human health and safety, for example, water quality. The comment does not specify what other human health and safety factors should be analyzed. The relevant factors related to human health and safety are analyzed in the EIS.

## Comments Received on the Trail and Commercial Pack Stock Management EIS

Comment Number	Respondent
1	James Drummond
2	Adrian Stingaciu
3	Calvin Smith
4	Nancy Muleady-Mecham
5	Doug Feay, Engineering Geologist, California Regional Water Quality
6	Richard Schneider
7	Richard Hammill
8	Kathryn Henderson, Mayor City of Bishop
9	Patricia Sanderson Port, Regional Environmental Officer, US Department of the Interior Office
10	Juila Hart
11	Jeremy Jenkins
12	Kathy Tomyris
13	Dan Butler
14	Mark Disbrow
15	Dave Hart, California Cooperative Snow Surveys, Department of Water Resources
16	Terry Roberts, Director, State of California, Governor's Office of Planning and Research, State
17	Michael Mulligan, The Thatcher School
18	Ruberta and Norman Taylor
19	Paul Frankenberger
20	Tom Martin, Co-Director, River Runners for Wilderness
21	Greg Kane
22	Chris Cook
23	Carole Butler
24	Steven Cook
25	Arthur Bass, Water Quality Coordinator, Willamette Riverkeeper
26	Paul Lamos
27	Judy Thompson
28	LB Williams
29	Scott Sullivan
30	David Dunn
31	David Hubbard
32	Don Schreiber
33	Deborah Benham
34	Timothy Lenehan
35	Dennis and Jeanne Oakeshott
36	Marcus Libkind
37	Ray and Debra VanDeWeerd
38	Dennis Winchester, Cottonwood Pack Station
39	Kathy Davigs
40	David Wilkins
41	Arthur Lawrence
42	Alan Brown
43	Rose Murray
44	Bruce Muirhead

Comment Number	Respondent
45	Kevin Proescholdt
46	Fred Mensing
47	Deborah Cook
48	Teri Giovanine
49	Camille King
50	Peggy Phaklides
51	Robert Dohrmann
52	Joan and Robert Benedetti
53	Richard Vassar
54	Zach Stewart
55	Kathy Allen
56	William Larsen
57	C. Rose Miles
58	Paul Haskins
59	R. Shaffer
60	Emory Menefee
61	Roger Godin
62	Monika Thon
63	Frances Brumley
64	Dana Daley
65	Raymond Bensen
66	Dell Redding
67	Katie Ross
68	R. Bouse
69	Dick Blizzard
70	Rick Karban
71	Roger Knox
72	Joann Aldrich
73	Mandy Picozzi
74	Keith Liker
75	Rebecca Fish Ewan
76	Larry Teplin
77	Ace Barash
78	John and Julie Helms
79	Judy Helfand
80	Steve Schwind
81	Ed Sweet
82	Roberta Lagomarsini
83	Robyn Truitt Drivon, Assistant City Counsel, San Joaquin County Counsel's Office
84	Eaton Family
85	Raiford Henry
86	Barbara and Dave Sholle
87	Lucille Kristofits
88	Mike Elam
89	Ron Knechtli
90	Earl McKee
91	Ray and Pattie De Lea



Comment Number	Respondent
92	Maria De Bernardi
93	William Schaefer
94	Steve Tabor, President, Desert Survivors
95	David Visher
96	Robert Lukesh
97	Edward Patrovsky
98	Rick Jali
99	Francis Toldi
100	Evan Johnson
101	Jolynn Jones
102	Mike Painter, Coordinator, Californians for Western Wilderness
103	Louise Jackson
104	Murdock Allen
105	Sarah Chisholm
106	Bob Dale
107	Thomas Garrett
108	Sarah Sheehan
109	Kelsey Engel-Collins
110	Birch Berman
111	Tony Armlin
112	A-Lea and David Lovis
113	Jackie Lewis
114	Betty Andrews
115	Catherine Ognibene
116	R.C. Smith
117	Bob Franzoia
118	Unknown
119	Anthony Batchelor
120	Ray Waud
121	Gerald Meral
122	Penny and Bill Dougherty
123	Unknown
124	Lisel Blash/Martha Noble
125	Kelly Dawn
126	Alan Mendoza
127	Graham Douglas
128	Deborah Richardson
129	Lucille Rella
130	Alfred Dobrow
131	Jan Geller
132	Andy Russell
133	Robert Baumgarten
134	H Stevens
135	Rheana Rafferty
136	Arlene Cavan
137	Unknown
138	Jodi Hollkamp

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139	Dick Ewart
140	James Feichtl
141	Dorothy Miller
142	Alan Pendley
143	David Kurtzman and Bunny Martin
144	Gary and Sherrill Brown
145	Carol Pederson
146	John Redwine
147	R.A. Nieman
148	Michelle Jackson
149	Sandra Lee Watson
150	Jack Vance
151	David Brown, Executive Director, America Outdoors
152	Pam Berry
153	David Berke
154	Catherine Winter and Doug Meyers
155	Jim Miles
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157	Jerry McFadden
158	David Anthes
159	Thelma Allen
160	Kaye Bruns
161	Nancy Senor
162	Robin and David Foorman
163	Celeste Felciano
164	Peter Eichorn
165	Kathe Hustace
166	Harry Reeves
167	Michael Cowan
168	Diane Bennett
169	Gerald Cole
170	Mike Artemieff
171	Richard Judd
172	Jacob Robbins
173	Thomas Clohessy
174	Richard Cimino
175	Tom Eliason, Tehipite Chapter, Sierra Club
176	Caryn Holmes
177	Gary Patton
178	Edy Horwood
179	Mark Langner
180	Ernie Hanou
181	Jill Adler-Moore
182	Curtis Ridling
183	Ed Campos
184	Brandy Rost Kriger
185	Scott Silver, Executive Director, Wild Wilderness

Comment Number	Respondent
186	Lorraine Masten
187	M. Loughman
188	William Wright
189	C. Judson King
190	Bill Balfrey
191	Mr and Mrs William Baer
192	Craig Holmes
193	Steve Anderson
194	Jane Sinclair
195	Norman Anderson
196	Peter Browning, President et al., High Sierra Hikers
197	Pat and Eric Gordon
198	Lou and Marye Roeser
199	Jim Bilyeu, Fourth District Supervisor, Inyo County
200	Ilana Levin
201	Ira Lowry
202	Troy Black
203	Irene Kritz
204	Sandy Manning
205	Monica Storms
206	Robert Frickel
207	Marcus and Lynn Taylor
208	Coral Henderson
209	Ron Gosswiller
210	Fred Baer
211	Robert Sikora
212	Greg Smith
213	Resident
214	Kristen McManus
215	Janet and Greg Perry
216	Sally Miller
217	MJ Vore
218	Vickie Taton, Environmental Programs Coordinator, Mammoth Mountain Ski Area
219	Daniel Marble
220	Philp Zander
221	G. Gregg
222	Jennifer/Frank Norris
223	Roberta Carlson
224	Elizabeth Wenk
225	William Jones
226	Carol Broberg
227	Alan and Christine Weber
228	Mickey Short
229	Gabrielle Carroll
230	Joe Fontaine
231	Eric Ongerth
232	Michael Steven Cole



Comment Number	Respondent
233	Robert Meador
234	Page Williams
235	Bill Dunlap
236	Zach Schnider
237	Jeanne Walter
238	Denyse Racine, Supervisor, State of California, Department of Fish and Game
239	Richard Hake
240	Nick Mandich
241	Ellen Holden
242	Marianne and Megan Rea
243	Ted Sommer
244	Martin Bauman
245	Stephen Cole
246	Stacey Pogorzelski
247	Paul Shekelle
248	Diane Wolfgram
249	Jonathan Braun
250	Clifford Hake
251	Mary Benson, Executive Director, LA Trails Project
252	Daniel Kozarsky
253	Janie Huntsberger
254	Charles McCollough
255	Stephanie Kearns
256	Laura and Rob Pilewski
257	Katie Clevenger
258	Dave May
259	Frank Donoghue
260	Maggi Georgi
261	Richard Shekelle
262	Murray Hall
263	Lassie and Frances Hammock
264	Chris Todd
265	Resident
266	Linden Nelson
267	Stephen Kabala
268	L. Mosley
269	Martha Woodward
270	Jana Jensen
271	Robert Griffith
272	Alice Fichander
273	Katherine Horst, Public Liaison
274	David Dohnel, President
275	Craig London, Vice President
276	Ann Lange, Chairwoman
277	Peter Pumphrey
278	Charles Horst
279	Gregory and Ruby Allen

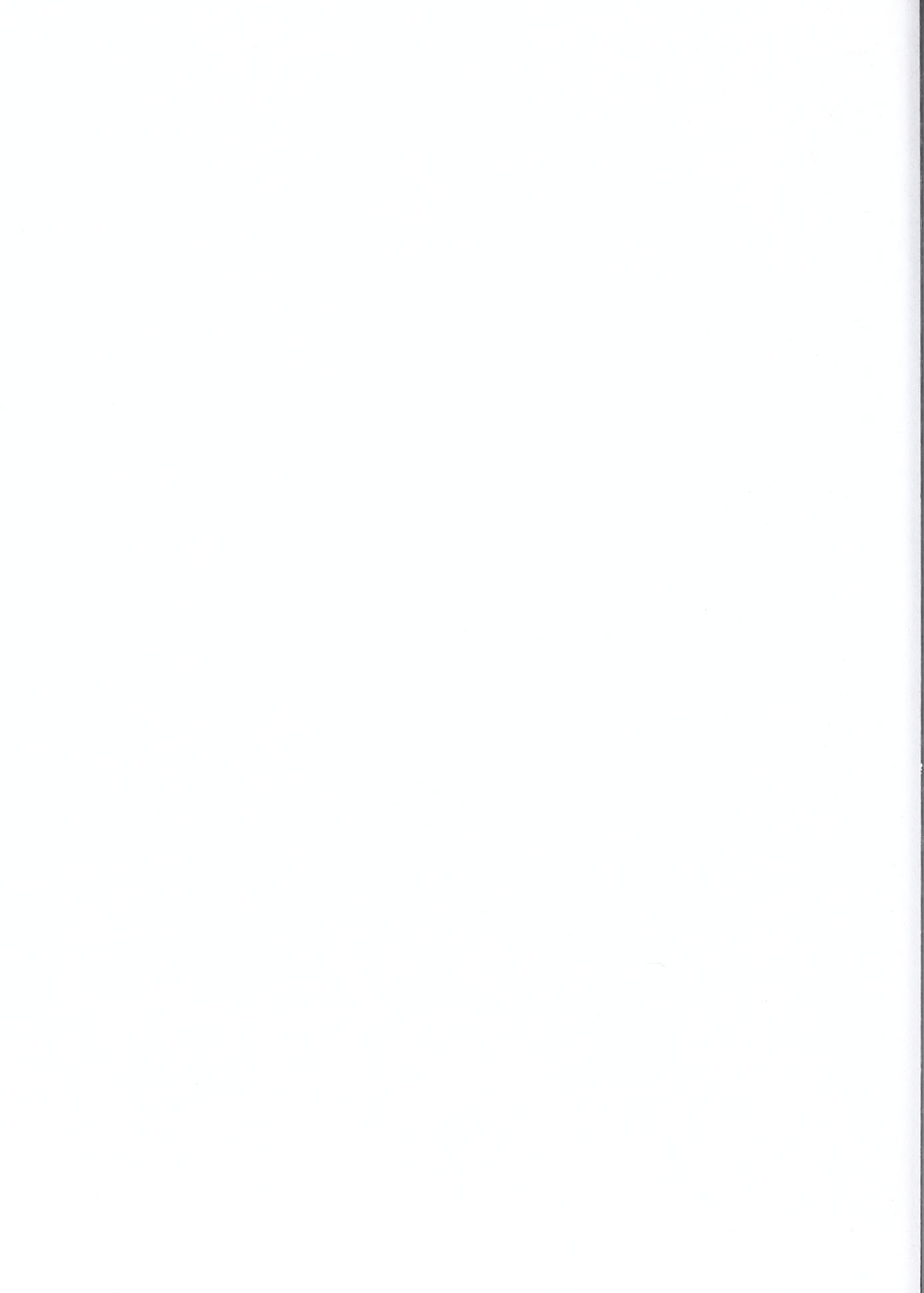
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287	Scott Stevenson
288	Grant Rogers
289	Bill Burt
290	Patricia Avery
291	Phyllis Skaggs
292	Arlene Grider, President
293	Joe Heaton
294	Larry and Sharon Clark
295	Ellen Wood Grnvalva
296	Christiana Hoffman
297	Irvin Lindsey
298	Lorenzo Stowell
299	Patricia and Joseph Currie
300	Thomas Hopkins
301	R.T. Schlatter
302	Kathie Kinzie
303	Tracy Swartz
304	Marc and Ragni Pasturel
305	Matthew Clark
306	Malcolm Clark
307	Guy Hanou
308	Susan Campo
309	Irwin Goldberg
310	Richard Cardella
311	Danica Berner, Co-owner
312	Terry Herder
313	William Van Winkle
314	Norman Livermore
315	David Hamilton
316	Vivien Mather
317	Terry O'Reilly
318	James Garrett
319	George Egbert
320	Mark Robinson
321	Stephanie Kearns
322	Resident
323	Terry Kenney
324	Ed Leos and Theresa Russell
325	David Dohnel
326	Dick Noles

Comment Number	Respondent
327	Reid Hopkins
328	Kathy Hanson
329	Samuel Glasser
330	Laurie Brecheen Ballard
331	Brian Anderson
332	Robin Severy
333	John Kaiser
334	Anne Johnson
335	Dave Moordigian
336	Tom Cash
337	Carolyn Sokol
338	Joanne Barnes
339	Debra Mason
340	Jana Ashley
341	Deborah Filipelli
342	James Wilson
343	Scott Kruse
344	Ruth Gerson
345	Celina Montorfano, Director, American Hiking Society
346	Tom Suk,
347	Gary Guenther, Wilderness Watch
348	Marcy Watton, Antelope Valley Trails
349	Emilie and Jared Van Sloten
350	Mark Jonas
351	Jim and Diane Barrie
352	Addie Jacobson
353	Mary Lou Hadley
354	Ted Williams, Supervisor, Inyo County Board of Supervisors
355	Jennifer Roeser, McGee Pack Station
356	Eric Linstadt
357	John Keyes, California State Horsemen's Association
358	Susan Burak
359	Alia Selke
360	Elizabeth Brensinger
361	Maya Leonard-Cahn
362	Paul McFarland, Executive Director, Friends of the Inyo
363	Theodore Young
364	Carol Jo Hargreaves, President, Mid Valley Unit, Backcountry Horsemen of California
365	Karl Forsgaard
366	Edward Khmara
367	Thor Wilbanks
368	Ara Miniasian
369	LaVerne Ireland
370	Eva Eagle
371	William Gardiner
372	I.L. Girshman
373	Chad Jamarrt

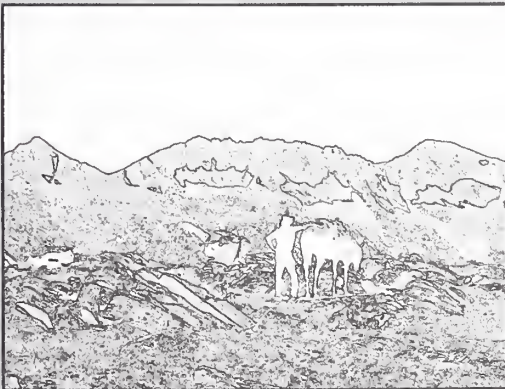


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375	Bernie Heckenlively
376	Patricia Fisher
377	Robert Jellison
378	William Homeyer
379	Rick Beatty
380	Mary/Antoinette Dwinga
381	Eric Bjorkstedt
382	Peter Fish
383	Bill Maze, Assemblyman 34th District, State of California Legislature
384	Dave Cox, Senator First Senate District, State of California Legislature
385	Michael Villines, Assemblyman 29th District, State of California Legislature
386	Signe Swenson
387	Richard and Troy Wiebe
388	Sandra Higginbotham
389	David Harp
390	Gena Pennington
391	Jeanette Alosi and Michael Gillis
392	Nellie Patterson
393	David Gibson
394	Bill Worf
395	John Spence
396	Frank Junga
397	Mike Camps
398	Vince Davis
399	John Moore
400	Mitch and Jan DeRidder
401	Kevin Garden, The Garden Law Firm
402	Love Family
403	Tammy Lundquist
404	Charlie Samos
405	Bruce Raaum
406	Stephen Bellieu
407	Adelina Maria Felciano
408	Tysa Goodrich
409	George Bergantz
410	Lauren and Michael Edlund
411	Lynn Norton
412	David Edlund
413	Ralph Kraetsch
414	Jeannine Koshear
415	Elaine Cook
416	Dave Cogdill, Assemblyman, 25th District, State of California Legislature
417	Barbara Donnelly
418	Janis Jolly
419	Hal Moldenhauer
420	Vicky Boudier

Comment Number	Respondent
421	Julianne Ryan and Robin Dare Oliver
422	Gregory Zentner
423	Deloras Smith
424	Phyllis Stroud
425	Russel Wilson, Acting Superintendent, Sequoia and Kings Canyon National Parks
426	Michael Tollefson, Superintendent, Yosemite National Park
427	Nova Blazej, Acting Manager, Environmental Review Office, Environmental Protection Agency
428	Floyd Bethany, National Forest Recreation Association
429	Lonnie M. Wass







## Appendix D Needs Assessment



# Appendix D Needs Assessment

## Needs Assessment for Commercial Pack Stock Services in the Ansel Adams, John Muir and Dinkey Lakes Wildernesses

### Summary

This Needs Assessment evaluates and analyzes the need for commercial pack stock services in the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses. It supplements the Needs Assessment contained in Appendix D of the 2001 *Wilderness Management Direction for Ansel Adams, John Muir, and Dinkey Lakes Wildernesses Final EIS*. The preparation of this Needs Assessment is guided by both interpretation of the legal requirements of the Wilderness Act and direction in Forest Manual 2320.

Commercial pack stock use has a long history in these wilderness areas; however, recent trends point to a decrease in both the number of pack stations and the number of clients serviced. To assess the need and appropriateness of commercial pack stock services in the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses, a survey was conducted in July and August 2005. The survey targeted 2004 overnight commercial pack stock clients. Based on the analysis of this survey, the services currently provided by these operations are proper and consistent with the intent of the Wilderness Act. The Needs Assessment concludes that there is a need for at least the current level of commercial pack stock use in these wildernesses. The Needs Assessment further concludes that the public need for these services is actually higher than what is provided today. Commercial pack operations in the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses are already heavily regulated by the Forest Service as the need for public access to the wilderness areas is limited by the need to preserve the wilderness character of the areas. Some of these regulations have, to some extent, limited the commercial packer's ability to meet the public's full need for these services. Also, based on demographic trends, there will be increased need in the future for commercial pack stock services in the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses.

### Document Structure

The Needs Assessment is divided into two sections. The first section provides the legal basis and direction for preparing a Needs Assessment. Next, a brief history of pack stations in these wilderness areas is provided along with a review of the services that they provide. Current commercial pack stock trends are examined including the types of services offered and groups serviced by these operations. To finish this section, there is a discussion of commercial pack stock use in the wilderness within the context of other uses, along with the regulations and mechanisms that have been placed on pack stock operations to protect the wilderness character of these wildernesses. The second section contains an analysis of the need for commercial pack stock services in these wilderness areas. Current levels of use will be discussed and evaluated by



two tests: first, whether the activities associated with the commercial pack stock use are proper in the Wilderness and second, whether there is a need for the service.

Also discussed will be the extent necessary; that is, whether the level of service is the extent necessary to realize the purposes of the Wilderness Act. A survey of past commercial pack stock clients conducted during the summer of 2005 will provide much of the basis for this analysis of current level of use. The next subsection of the second section will focus on whether the public's need for commercial pack stock services is being fully met today. Lastly, demographic trends and their implications for the future need of commercial pack services will be discussed.

## **Section 1 – Background and History/Trends for Commercial Packing**

### **I. Legal Requirements for a Needs Assessment**

As this Needs Assessment is being applied to wilderness areas, requirements of the Wilderness Act, signed into law in 1964, need to be considered. The Wilderness Act states that “commercial services may be performed to the extent necessary for activities which are proper for realizing the recreational or other wilderness purposes of the Act.” The “recreational or other wilderness purposes of the Act” is clarified earlier in the Act in Section 4(b) which specifies that “except as otherwise provided in this Act, wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use.”

The primary Forest Service Manual direction for the preparation of a Needs Assessment can be found in Manual 2320 which states that “[a]s identified in forest land and resource management plans, provide for commercial outfitting and guiding services that address the concerns of the public health and safety and foster small business.” The 1988 Inyo National Forest Land and Resource Management Plan identifies the general need for commercial services in the wilderness. Further, the 2001 Wilderness Plan identified the need in Appendix D, Needs Assessment, for commercial pack stock services in the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses. The level of service needed is not identified in the 2001 Needs Assessment; however, the document did conclude that there was a need for pack stock services in these wilderness areas. It is the intent of this Needs Assessment to further analyze and identify the extent to which commercial pack stock services are needed in the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses.

There is a basic tension between the Wilderness Act objective of preserving the wilderness character of an area and the devotion of the area to public purposes such as recreation. This is particularly true with respect to commercial pack stock use in the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses. As the Needs Assessment will show, there is a definite and clear need for commercial pack stock services in the wilderness areas and these services are appropriate and proper for realizing the recreation and other wilderness purposes of the area. This use, however, has to be limited by the need to protect wilderness character. The purpose of this Needs Assessment is not to resolve this tension between recreation and wilderness character. Rather, it is to acknowledge that this tension exists and that the resolution of the tension is a challenge fraught with difficulty. For these wilderness areas, the decision as to the appropriate

level of commercial packing services will be made in the Record of Decision for the Trail and Commercial Pack Stock Management Final EIS.

## II. History of Packing in the Sierra Nevada

Chapter 3 of the *Trail and Commercial Pack Stock Management in the Ansel Adams and John Muir Wildernesses Final EIS* provides an extensive review of the history of commercial packing in these wilderness areas. The history of guiding with pack and saddle stock in the Sierra Nevada, including these wilderness areas, indicates that commercial guides and services—as well as the first rangers and military patrolling the forest reserves—began in the late 1800s. In 1871, Tom Agnew, who built a cabin in what is now called Agnew Meadows, guided visitors with pack stock in the San Joaquin drainage for the Yosemite Park Rangers. Allie Robinson in 1872 packed commercially from Onion Valley. E.H. Edwards Mercantile in Lone Pine advertised “Outfitting store for camping expeditions to Mt. Whitney and Cottonwood Lakes” in 1874. The Pine City Feed and Livery Stable (later known as the Lake Mary Pack Station) transported people and supplies in 1878 across the Sierra to and from Mammoth City and Fresno Flats. Helen McKnight Doyle, in her book *A Child Went Forth*, describes pack trips into the Mammoth and June Lakes area for fishing vacations. The Pioneer Stables, located in Bishop Creek, advertised in the *Inyo Register* in 1887. (Eastern Sierra Packers Association, 2000)

The founding of the Sierra Club by John Muir in 1892 focused widespread public interest on visiting the Sierra Nevada and preserving Yosemite Valley, the giant sequoia groves, and other natural landmarks. In order to develop a constituency for the Sierra Club’s preservation efforts William Colby started a tradition of conducting trips into the Sierra Nevada in 1901. For the next 50 years the large Sierra Club High Trips kept packers busy and led the way for thousands of wilderness adventurers. They were elaborate affairs, lasting 2 to 4 and sometimes up to 8 weeks involving an average of 150 people, around 50 packers and long pack trains of up to 250 mules carrying 100 pound stoves and full-time cook crews (Farquhar, 1965; Dilsaver and Tweed, 1990; Jackson, 2004). These types of outings helped to promote the wilderness concept and contributed to building the necessary support for passage of the 1964 Wilderness Act (Eastern Sierra Packers Association, 2000).

The unrestricted use of forest reserves by packing operations ended in 1906 with the creation of the Forest Service. (The Inyo and Sierra National Forests were created in 1907.) Regulations were instituted to control the degradation of public lands. They included the number of animals used in each forest, the allowed period of time for grazing, a requirement for grazing permits, a grazing fee, and the approval for structures such as out-buildings, tent sites, drift fences, and corrals. Other concerns such as fire suppression, camp sanitation, trail maintenance, and adherence to Fish and Game laws were addressed. By 1920, both the Park Service and Forest Service required a concessionaire’s permit for packing operations (Jackson, 2004).

Packing became a profitable business in the 1920s, with 36 large pack outfits operating in the southern Sierra Nevada and, of those, 15 (42%) were on the east side (Jackson, 2004). Many of the currently operating pack stations can trace their history back to the 1920s and 1930s (Eastern Sierra Packers Association, 2000). The earliest pack station on the Inyo National Forest that is still functioning is Rock Creek Pack Station, established in about 1919 or 1922 (Marye Roeser, former co-owner of Mammoth Lakes Pack Outfit, Personal communication, 2004 and 2005).

Most of the early recreation use in the back country, almost all of which was supported by pack trains, was fishing and hunting. After the hoof and mouth epidemic in 1924 reduced visitor use for several years, pack outfits increased in the southern Sierra Nevada to 71 in 1935 with 22 (31%) in the eastern Sierra Nevada (Livermore, 1935).

The Great Depression and World War II brought problems to commercial packers in the Sierra Nevada. Gasoline rationing restricted travel to pack stations and lack of personnel due to the military draft brought near disaster to the pack outfitters. Even the profitable Sierra Club High Trips were suspended until the end of the war (Jackson, 2004). The Inyo National Forest, which administered all Forest Service land in the eastern Sierra Nevada, listed nine pack operations in 1942. This was 14 less from the war's beginning in 1941.

The number of pack stations again increased to about 60 on both sides of the crest between Sonora and Walker Passes in 1947 after World War II. As a result of an improved economy, longer vacations, better access to the mountains by automobiles, and light weight materials, recreational packing boomed (Livermore, 1947). Two-thirds of those outfits and stock were based on the east side. The growing numbers of operations created intense competition and customers demanded better service. With this increased competition came an increase in more stringent business practices such as liability insurance, performance bonds, financial reports, schedules of personnel and stock, and logs to track the numbers of animals grazed, number of customers, service days, destinations, and day trip rentals. Along with bookkeeping was added pack station maintenance and increasing costs of doing business such as feed, salaries, stock, equipment, supplies, maintenance, and insurance. Pack outfits either lost money or barely met expenses (Jackson, 2004).

Beginning before the war and continuing into the 1950s, packing operations began to feel other changes that made the business less profitable (Jackson, 2004). Government contracts became scarcer and the automobile and airplanes began to replace mules as a means of transportation. Much of the back country was closed to hunting when Kings Canyon National Park was established in 1940 (Livermore, 1947). Boats were restricted to non-motorized ones and permits were required to pack them in. Loose herding of stock was prohibited on non-hazardous trails by 1950. Overused camps and meadows for grazing were placed off-limits and even permitted meadows could no longer support the demands of pack trains. In 1946 the number of animals permitted on any single trip into the national parks was limited to 75.

Commercial pack stations hit their peak in the ten years or so following World War II. Since the 1950s, the number of pack stations has decreased considerably. Likewise, the number of stock and clients serviced has also decreased.

Not accounting for fluctuations, the decline in the intensity of pack operations in the southern Sierra Nevada (from Yosemite National Park south) can be partly measured by the estimated number of stock owned, which decreased from 2764 head in 1935 to 1420 in 1986—a 51% decrease. There was also a consolidation of pack stations between 1935 and 1964 although the total number of pack stations in 1964 implies a secondary peak of 66 in a downward trend, of which only 17 (25%) were on the east side, the lowest percentage since 1920 (Jackson, 2004; Livermore 1935; Sierra Club 1952; High Sierra Packers Association, 2000).

This downward trend continued into the 1990s. The number of pack outfits decreased to less than 50 in 1990. Major pack stations from the Kern Plateau to Silver Lake numbered 71 at a historical maximum and only 13 by 2004, an 82% reduction. In order to maintain a viable



business a few of the more prosperous pack stations in the northern study area, Frontier, Red's Meadow, and Rock Creek Pack Stations have been supplementing their income by offering saddle day trips to tourist-organized horse drives in the Long Valley and Mono Basin areas. This is in addition to the earlier variety of trips offered outside the fully outfitted traveling trips such as spot trips, trail rides, base camps, and dunnage packs and caches.

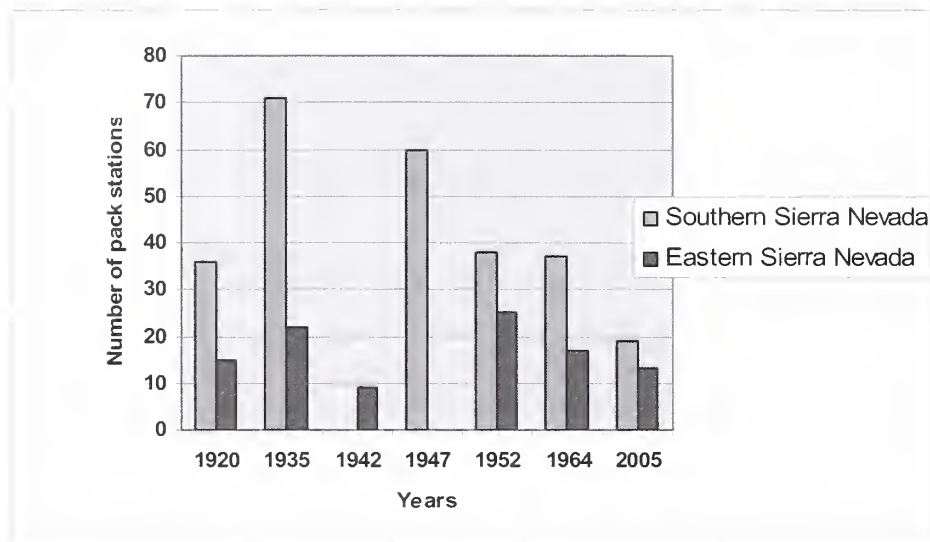
### III. Current Packing Trends and Activities

Commercial packing operations in the Sierra Nevada peaked in the years following World War II. Since the 1950s, there had been a trend towards fewer pack stations, commercial stock in the wilderness areas, and clients utilizing the services. There are a number of reasons behind this downward trend including the development of roads closer to wilderness boundaries and the proliferation of personal automobiles. The discussion below focuses on the downward trend of the number of pack station, commercial pack stock, and clients serviced.

#### Pack Stations Numbers

After peaking in the years before and after World War II, the number of commercial pack stations servicing the Sierra Nevada has declined considerably. Figure 1 shows the decrease over the last fifty years. Numbers were generated from several sources and, in some cases, are for somewhat different geographic areas. The overall trend, however, is clear: there are far fewer pack stations servicing the Sierra Nevada today compared to fifty years ago. *The Tourist Packing Business of the High Sierra Region*, a study by Norman B. (Ike) Livermore, Jr. conducted in 1935, reported 71 pack stations serving the High Sierra area from Kernville to Yosemite, with over 2700 head of stock. (Livermore, 1935) Today, the number of pack stations serving the same Sierra region is less than 30. Several operations were consolidated and some were eliminated as roads penetrated farther up the east and west slopes of the Sierra Nevada, thereby reducing the need to originate trips from the valley floor. In the 1920s and 1930s trips would take anywhere from 10 to 30 days. In today's world, few visitors are willing to commit the same amount of time on a wilderness vacation.

Figure 1. Comparison of the number of commercial pack stations servicing the southern and eastern Sierra 1920-2005

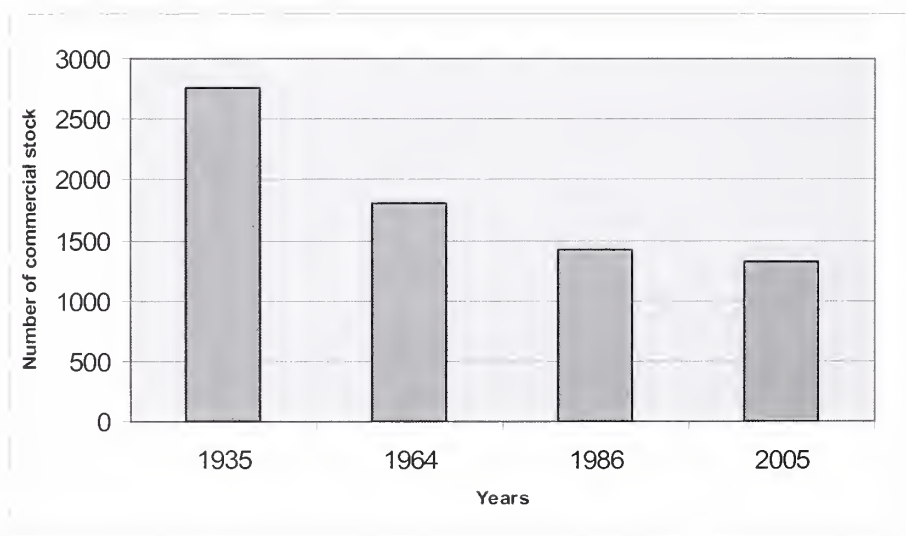


Note: The eastern Sierra includes pack stations from Silver Lake to the Kern Plateau. The southern Sierra Nevada includes pack stations south of Yosemite. (sources: Jackson, 2004; Livermore, 1935; Sierra Club, 1952; Inyo National Forest, n.d.)

## Commercial Stock Numbers

Paralleling the decrease in the number of commercial pack stations has been a decrease in the number of commercial pack stock in the Sierra Nevada. Using historical sources, it is not fully known how the numbers of pack stock have fluctuated in the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses. These historical sources, however, can be used to compare commercial stock use in a wider area. Figure 2 shows the drop in the number of commercial pack and riding stock used in their operations in the Sierra Nevada region over the last 70 years.

Figure 2. Commercial pack stock in the Sierra Nevada 1935-2000.



Sources: Jackson, 2004; Livermore, 1935; Sierra Club, 1952; Inyo National Forest n.d.

The reduction in stock numbers from 1935 to 2004 is 1446; or a total reduction of 52%. The reduction in stock numbers from the 1964 Wilderness Act to 2004 is 489; or a total reduction of 27% for roughly the same general area.

### **Pack Stock Client Trends**

According to use data presented in the John Muir Wilderness Plan (1979), from 1972 to 1976, the total use in the wilderness averaged 84,873 people. At the time, commercial pack clients made up 5% of the use in the wilderness and so during the 1970s there were an average of 4,244 pack stock clients in the John Muir Wilderness. For the years 2001-2004, the average number of pack station clients for both the Ansel Adams and John Muir Wildernesses was 4,783. The John Muir Wilderness portion in 2001-2004 averaged only 3,319 clients. This represents an average of 925 fewer clients or a 22 percent reduction between the 1970s and 2000. This contention is further supported by the 1979 John Muir Wilderness Plan (page 6): "Nineteen commercial packers serve the John Muir Wilderness. Most of these operate out of facilities located near the trailhead they use. Commercial pack stock use has not increased appreciably over the past two decades." And, the 1979 Minarets Wilderness Plan (page 5) states, "Commercial pack and saddle stock use has remained static or has even declined slightly during the past decade."

## **IV. Limiting commercial and non-commercial uses in the wilderness to protect wilderness character**

The need for commercial stock service in these wildernesses has been established in a number of management documents including the 1988 Inyo National Forest Land and Resource Management Plan and the 2001 Ansel Adams, John Muir, and Dinkey Lakes Wildernesses Final Environmental Impact Statement. The limiting factor defining the extent necessary for areas served are the wilderness standards set to preserve the wilderness character. For more than 30 years, the Forest Service has determined that higher levels of pack stock use could unacceptably impact the wilderness character of wilderness areas and as a result has imposed use and activity limitations and restrictions on them. For example, the 1979 Minaret Wilderness Management Plan (USDA Forest Service, 1979) states, "Pack station stock numbers will not be allowed to increase, unless special studies show an increase to be compatible with the wilderness resource."

Over the years, controls on commercial pack stock have become more stringent and site-specific. Prior to 2001, commercial pack stock operations did not operate under quotas. Appendix L of the 2001 Wilderness Plan (Quota Rationale) was used for setting first-time commercial quotas, and did include an analysis of appropriate commercial (and non-commercial) quotas based upon the identified resource concerns and limiting factors. Further, the 2001 Wilderness Plan Record of Decision stated that "Alternative 1 Modified establishes quotas at levels of use that we believe are compatible with maintenance of wilderness character. Quotas were examined by comparing recent actual commercial and non-commercial daily use levels by entry point with their impact on the physical, and to a lesser extent, social/experiential resources (such as potential for crowding due to topography and use patterns). Quotas were evaluated and sometimes adjusted for non-commercial and established at appropriate levels for commercial operators consistently across the wilderness. In areas where it was determined that by reducing the daily overnight use levels there would be a positive effect or correct an identifiable resource concern, appropriate adjustments were made to quotas" (Appendix L, 2001 Wilderness Plan).



Additional standards set in the 2001 Wilderness Plan that directly and indirectly define the limits for allowing areas to be used by commercial pack stock and their clients include trail and user-created trail standards, campsite and campfire restrictions, grazing standards, best management practices for water quality, and standards to avoid impacts to critical wildlife areas. These standards define and limit the areas accessible and available to commercial pack stock use and service. For example, the 2001 Wilderness Plan directs that "All commercial pack stock must stay on designated trails, except where authorized in advance by the Forest Service for alternative routes or to access campsites and grazing areas." This defines and limits the extent of areas and locations that commercial pack stock services are permitted. Clients of commercial packers are generally limited to only areas with approved trails. The 2001 Wilderness Plan also directs that no new trails will be constructed. This further defines that trail expansion or opening of new areas will not happen. Areas open to commercial pack stock clients are further limited by the availability of suitable grazing areas, campsites, campfires, and approved use-trails.

The 2005 wilderness planning efforts continue this trend by adding new restrictions including designated campsites, destination quotas, grazing and trail suitability, and stock limits. These new regulations will further define where, when, and how commercial pack stock can travel in the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses. Collectively, these limitations restrict commercial pack stock services to about 9% of these wildernesses.

#### Allocation of capacity between wilderness user groups

Along with wilderness capacities and putting in management standards, another issue to resolve is how to allocate use of the wilderness between the various user groups, including commercial pack stock, backpackers, and outfitters/guides. This balancing between different visitor groups is a fundamental issue in the wilderness without an easy answer. In the 1970s, when the Forest Service first required wilderness permits, established trailhead quotas to manage use, restricted party size, restricted camping and campfires, and took other actions judged necessary to protect the wilderness character, it was the managers' objective to "freeze" the level of commercial pack stock activities. This level of use for commercial pack stock services resulted in a relatively finite number (measured in stock numbers and service days) that effectively prevented them from growing or meeting the needs of visitors. With the necessary wilderness protection controls and restrictions in place, managers determined it was adequate to use only a permit and daily trailhead quota for the vast majority of the users (mostly backpackers) and maintain a constant level of commercial pack stock regulated by service days and pack stock numbers.

There has been an annual capacity allocation of roughly 6-8% to visitors needing commercial pack stock services, 5% to visitors needing other commercial services, and more than 87% to non-commercial visitors. Allocating only 6-8% of the use capacity of these wildernesses to people needing commercial pack stock services is probably not enough in light of future trends (see discussion below of demographic trends).

Commercial pack stock use in the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses currently make up a relatively small percentage of use (see Figure 3).

Figure 3. Comparison of overnight use in the Ansel Adams and John Muir Wildernesses 2000-2003



Note: The percentage of overall commercial use changes annually as a result of total overall use changes as well as as much as commercial use changes. This shows the fluctuation between 2001 and 2003. Changes in these years resulted from the court ordered reduction in commercial pack stock services.

Since more than one user group is competing for the available capacity during popular times of the year to visit these wilderness areas, limits and allocations must be set for all user groups. For commercial packers, the most sensitive factor that managers have consistently concluded must be limited and regulated is the use of the pack stock. It is this reason that pack stock services and numbers have been held static at benchmark levels and the service area restricted to only 9% of the total area where it is judged sustainable and compatible with preserving the wilderness character.

## V. Commercial Packing Services and Trips

In 2004, commercial packers serviced approximately 4,000 overnight clients in the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses. Similar to past years, commercial packers provided a number of different trips and services for both the public and private sector. The following is an overview of the trips and services provided by commercial pack stock operations.

### Types of Groups Serviced

This section describes the types of groups that commonly utilize commercial pack stock to access and experience the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses. Section 2 will introduce and discuss the topic of need categories.

**Family and Multi-generation Groups:** Many individuals and families have traditionally engaged in summer wilderness “pack trips” in these wildernesses areas. Grandparents (and great-grandparents) who have spent many summers in the Sierra want to share and experience the wilderness with their children, grandchildren, and great-grandchildren—all together. More and more “Baby Boomers” who were backpackers in the 1970s now need the services of packers in order to access these areas with their families and children. For these family groups, the Sierra experience is very important to them for their wilderness recreation and enjoyment, and to

pass along to their children and families their wilderness values. Because many of these families have young children or members unable to walk or carry their own equipment, the packer services are needed for their transportation to wilderness. For others, the riding and pack trip itself is the experience desired; many people who want to experience a stock supported trip do not have access to animals or knowledge to use them. No attempt to quantify these types of trips will be made here; however, visits to pack stations during the summer of 2005 revealed a number of multi-generational trips. Many of these groups included fairly young children who were entering the wilderness—with the help of commercial pack stock—with their parents and their grandparents. Anecdotal conversations with these types of groups revealed a common theme—older wilderness users were eager to experience the wilderness with a younger generation.

**Organized Groups:** Groups sponsored by Boy and Girl Scouts, churches, YMCAs, schools, universities, companies, conservation groups, clubs, organizations, camps, inner-city youth programs, and others commonly require packer services to provide their camps and logistics for their wilderness trips. Many of these groups have been taking pack-supported trips for decades, some even pre-dating the Wilderness Act. Without packer services, many of these groups would not be able to serve their group needs, as often not everyone is capable and fit enough to walk and carry their own gear.

**Special Function Groups:** These trips are generally organized for a specific purpose related to wilderness use; they often focus on an educational aspect of wilderness such as photography, art, writing, spiritual enrichment, research, medicine, nature study, etc. Agency sponsored trips are also supported by pack and riding stock, and include trail crews, search and rescues, fish stocking, survey crews, mapping specialists, military personnel, and Congressional representatives among others. Special function groups often have materials and equipment too bulky and heavy to carry with backpacks and include members who are not capable of walking or carrying their own equipment. Visits to pack stations during the summer of 2005 provided an opportunity to talk to these types of groups. Again, there is no attempt here to quantify the number of groups that fall under the “special function” grouping. Pack station visits conducted during the summer of 2005 did reveal, however, that a number of groups utilize commercial pack stock to transport their gear. A number of fishing related parties were encountered as well as a landscape painter who was utilizing commercial packers to transport easels and painting equipment. Native American groups also utilize commercial pack stock support to help with their annual traditional walks. Bishop Pack Outfitters, for example, has for a number of years provided pack stock support for some Native American walks free of charge. In addition, during the Draft EIS public comment period, a comment was received from the State of California Snow Survey group reiterating the importance of commercial pack stock support for their activities.

**General Outings:** There are hundreds of visitors each year who travel individually or gather with a small group of friends, family, or work associates and take a commercial pack-supported trip to simply enjoy and experience the wilderness. They may engage in several types of activities while in the wilderness such as day hikes from a base camp, fishing, photography, etc. Many of these visitors desire to experience wilderness riding and using pack stock, but do not have access to private stock or the knowledge to properly use and handle pack stock in a wilderness setting. Again, anecdotal conversations with commercial pack stations clients during the summer of 2005 revealed a number of groups that consisted of friends and family who



desired to experience the wilderness but did not have the knowledge or physical ability to backpack into the area over night.

## Types of Commercial Pack Stock Supported Services

There are a number of services currently provided by commercial pack operators. The following provides an overview of these types of services.

**Spot Trips:** Visitors ride and their gear is packed to a pre-selected area. The stock and packer do not generally stay in wilderness but return for the visitors on a predetermined date to take them out. Some spot trips are one-way spot trips in which the client rides in the first day to help with elevation acclimation and then hikes out at the end of their trip.

**Dunnage Trips:** Visitors' backpacks, food and camp equipment are packed into a specific location, and they hike to meet it. Spot and dunnage trips comprise approximately 80% or more of the overnight services provided by packers.

**All Expense/Traveling Trips:** These are customized trips that will meet the visitors' specific needs for dates, locations, and members of the party. The pack and riding stock, packer and a cook are also provided on these trips. There are several variations of the all expense trip including hiking with pack stock, continuous hire of stock and packer, and trail rides. **Hiking with Pack Stock** offer visitors the option to have all of their equipment, food and supplies provided, or they can supply their own. Generally the visitors will hike, and have their camp and equipment packed. There may be some visitors who choose or have to ride because of physical limitations. **Continuous Hire of Stock and Packer** are for those who wish to have the packer and stock remain with them throughout the duration of their trip. The camp-gear and provisions are provided by the visitors. **Trail Rides** travel to pre-advertised locations within the wilderness and provide the "classic" Sierra pack trip wilderness experience. They can either be fully outfitted by the pack station, or there can be a combination of equipment supplied by the visitors. The outfitter supplies the packing and riding stock, a packer and a cook, and the staff will stay with the party for the entire trip. These are pre-advertised, with set dates and locations.

**Day Rides:** Commercially guided riding trips are available for those visitors who want to enjoy the wilderness scenery, take photos, go fishing, or visit a special area for just a few hours. Rides vary in length from one hour to all day.

## Section 2 –Need for Commercial Packing Services in the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses

This section analyzes the current level of commercial pack stock use in the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses. The analysis will consist of two tests: first, whether the activities supported by commercial pack stock are consistent with the intent of the Wilderness Act and second, whether there is a need for the wilderness user to utilize commercial pack stock to experience the wilderness. A survey was conducted during the summer of 2005 to quantify the appropriateness and level of need for commercial pack stock services. The survey is described in more detail below.

The strategy for determining the need for commercial pack stock will be to look at current use levels and determine whether the current level of service reflects the actual need for commercial pack stock service in the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses. This need will be examined by analyzing the current level of commercial pack *clients*. The need for commercial stock services can be best analyzed using this approach. Another strategy may be to address whether the current number of permitted pack *stations* are necessary for realizing the intent of the Wilderness Act. This strategy is inferior and largely irrelevant to determining the need for commercial pack stock service in the wilderness as it does not address the level of actual public use in terms of client numbers. The current number and location of pack stations in the project area has evolved to its current state over a number of years. Pack stations are generally located in areas that are in drainages in close proximity to recreation areas. Most of these operators have been operating in their current locations for a number of years and have a high level of knowledge of the area. Most importantly, the number of operators does not matter to the overall need to protect the wilderness—the number of trips and level of use is what is important to analyze. Eliminating operators will have no effects on the impacts of commercial packing unless the use level is also lowered. Reducing the number of operators, however, may have serious implications for the public's ability to use the service as some areas may become underserved unless new operators are willing to truck their stock to distant trailheads. The question of the level of need is best addressed, then, by examining the public use of the services.

The 2005 Commercial Pack Client Survey results will be used to determine whether the activities associated with commercial pack stock are appropriate and consistent with the intent of the Wilderness Act. The survey results will also be used to analyze the level of need for commercial pack stock services. Part IX will look at demographic trends that may influence the future need for commercial pack stock service in these wildernesses.

The next section will describe the two tests. The results of the survey are discussed below in the Public Purposes of the Wilderness Act and Need for Commercial Packing Services sections.

## Part VI Description of Two Test Evaluation of Current Levels of Commercial Pack Stock Use

### Test One: Public Purposes of the Wilderness Act

The first test for the current level of commercial pack services is whether the service supports activities consistent with the public purposes of the Wilderness Act. The Wilderness Act allows for commercial services in the wilderness that support “activities which are proper for realizing the recreational or other wilderness purposes of the Act.” The language “recreational or other wilderness purposes of the Act” is clarified earlier in the Act in Section 4(b) which specifies that “wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use.”

The following is an overview of the ways in which commercial packers contribute to the public purposes of the recreational, scenic, scientific, educational, conservation, and historical uses of the Wilderness Act.

**Recreational:** The types of trips and services that are recreational in nature are for relaxation, fishing, hiking, horseback riding, photography, enjoyment of the wilderness areas, and to basically get away from the urban environment. The historic and classic “Sierra Pack Trip” fits into this type of use. Many family or group members are not physically capable of walking and/or carrying their gear because of their age, physical conditions or other limitations. Some groups lack the specialized knowledge or experience to travel and camp safely or properly in wilderness. For many individuals and groups, packers offer the needed services and support to allow wilderness visitors to use and enjoy these areas for proper recreation purposes. Annually, packers serve approximately 4,000 overnight visitors and approximately 3,500 day riders. This may represent less than 8% of the total visitors to these wildernesses, but without packer services, many of these visitors would not have any opportunity or ability to recreate in these areas.

**Scenic:** These wildernesses are some of the most scenic areas in the world. Overnight and day use visitors to these wildernesses frequently mention that viewing the scenery is one of the primary purposes for their visit. All of the individuals, groups, organizations, and agencies that commonly use and rely upon pack stock services for their recreational benefits also realize scenic benefits from their wilderness visits. Pack station operators make it possible for many people who otherwise could not hike to see and appreciate the scenery of these areas.

**Scientific:** Extensive research and study has been conducted in these three wilderness areas. Generally, equipment and supplies needed to support the research is bulky and heavy, and is needed in very remote locations. Commercial pack stock services are generally the most suitable and appropriate form of transport in these wildernesses. The alternative modes of transport, such as helicopters, are less appropriate. Some examples of research efforts supported by commercial pack stock are: Earthquake Research by University of Nevada – Reno, U.S. Geological Survey (USGS), University of Utah, U.C. Berkeley, the University of Hawaii, and China; Volcanic Research by USGS; Mineral Deposits by USGS and Bureau of Mines; Water Resources by California Department of Water Resources for snow and water surveys; Yellow-legged Frog Research by UC Santa Barbara, California Department of Fish and Game; Bighorn Sheep Research by California Department of Fish and Game; Spotted Owl Surveys by Forest Service and Pacific Southwest Research Station; and Fish Stocking Research by California Department



of Fish and Game. The Eastern Sierra region, including the Sierra Nevada range, is one of the most heavily used areas for research and study because of the vast wildernesses, parks, and other public lands that make it ideal for studying the undeveloped and natural world. Packers play a significant role in facilitating the transport for many of these research projects. And, without their services the impact on the wilderness solitude would certainly be more significant as researchers and agencies would be forced to rely more frequently on mechanical transport.

**Educational:** These wildernesses are natural learning centers. Universities, organizations, agencies, and individuals use these areas for educating students, members, and personnel. Pack stations often are needed to transport base camps, personnel, and equipment to wilderness locations. Pack stations have provided support to organizations, agencies, and companies developing documentaries about wilderness. Natural History, Geology and Astronomy courses are frequently offered through universities and conservation organizations in cooperation with and supported by Eastern Sierra Packers. Some groups with programs assisted by the packers include: U.C. Riverside, U.C. San Diego, Saddleback Community College, Santa Rosa Community College, and U.C. Davis. Other youth programs that have a long history with using packers for trips include: Youth Enrichment (LA PD), YMCA (20 or more locations), Churches (20 or more locations), Bear Valley Native American program, and Girl Scouts and Boy Scouts. Groups promoting personal growth such as Pacific Crest Outward Bound are also supported by packers. Packers also sponsor and support horse packing and horsemanship courses, professional packing schools, and minimum impact stock courses for persons using stock in the wilderness.

**Conservation:** Historically, commercial packers have contributed to the conservation component of the public purposes of the Wilderness Act by facilitating public access into the wilderness areas of the Sierra Nevada and by providing support for conservation related

activities in these wilderness areas. The early days of the Sierra Club outings in the Sierra Nevada, for example, were primarily supported by commercial pack stock. Today, commercial packers continue to build constituency for the wilderness concept by providing access to these wildernesses for individual and groups who might otherwise not have the ability to experience and enjoy the areas.

In terms of conservation projects, Forest Service, California Department of Fish and Game, California Water Resources Department, and other agencies use the packing services of



President Roosevelt and John Muir Horseback, 1903  
(Source: Yosemite Museum National Park Service)

these pack stations for supporting resource and conservation work in wilderness. Removal of litter and facilities, trail maintenance, watershed restoration, airplane wreckage removal, maintenance of fish barriers, and similar support are provided by commercial pack stock. Studies and inventories by agency specialists sometimes use packers. Packers are also called upon to provide the support for “partnership and policy trips” including federal agencies,

congressional representatives and staff, judges, county and state leaders to discuss and review conservation efforts and work. In fact, Sierra packers have served dignitaries such as Secretary of State Robert McNamara, Governor Ronald Reagan, Supreme Court Justice William O. Douglas, Theodore Roosevelt IV, and the California Fish and Game Commission.

**Historical:** A “Sierra Pack Trip” is considered by some to be the ultimate experience reflective of our rich western and wilderness heritage. While commercial pack stock services have a practical and necessary function of transporting people who need help to access and use these areas, to others, their services are part of the wilderness experience itself and provide the only practical opportunity for many visitors to experience the wilderness pack stock tradition of these wildernesses. Without their packing services, many people who desire this recreational and historical experience would not be afforded it, as few people have the necessary pack stock, skills, knowledge, or experience to use pack stock in a wilderness setting by themselves. Not only is the history of these wildernesses deeply rooted in the use by commercial pack stations, many of the prominent landmarks are also either named by or after packers. Packers pass along their historical knowledge to their clients and enrich their experiences and understandings of these areas and about wilderness itself.

## **Test 2: Need for Commercial Packing Services**

This section discusses the second test for current levels of commercial pack stock; whether there is a need for the use. Six categories of need have been identified. This test and these categories provide the basis for addressing the Wilderness Act standard that, “Commercial services may be performed within the wilderness areas designated by this Act to the extent necessary for activities which are proper for realizing the recreational or other wilderness purposes of the areas.”

### **Categories of Need**

#### **1. Persons with physical limitations that make them unable to walk and/or carry their own equipment.**

- Disabled persons
- Persons physically and medically limited (back/knee injury)
- Persons with diseases and health conditions that limit strenuous exertion (heart, hypertension, etc)
- Elderly and very young persons with limited mobility or endurance
- Persons lacking adequate physical conditioning to achieve desired experience or activity

#### **2. Persons with equipment too bulky or heavy to carry.**

- Photography equipment
- Water floatation devices such as rafts or canoes
- Supplies and equipment for extended stays or travel
- Search and Rescue equipment
- Equipment and materials necessary for approved uses and activities such as dam maintenance, mining, watershed and fish projects, etc.
- Equipment and materials necessary for Universities, contractors, and cooperators with approved studies
- Equipment and materials necessary for groups with extended trips into the backcountry

**3. Hunters needing pack stock to haul game.**

- Deer hunting in wilderness zones under State law

**4. Persons desiring a wilderness “pack trip” or “day ride” experience.**

- Persons desiring a pack trip but who lack knowledge or skills to handle or use stock in wilderness setting
- Persons desiring a pack trip but who lack wilderness knowledge to safely and properly travel and camp in a wilderness setting, and require professional assistance to guide and advise them
- Persons desiring a pack trip but who do not own stock, or otherwise have access to suitable pack stock
- Persons desiring a pack trip who own private stock suitable for wilderness use but who practically cannot use their own stock
- Persons who are seeking the traditional “Sierra Pack Trip”

**5. Persons able to walk but affiliated with persons falling into need categories 1-4, and therefore included as member of commercial group.****6. Native American traditional walks or gatherings requiring pack stock to transport camps and persons not able to walk.****Categories where commercial pack stock support is not necessary include:**

- Persons able to walk and hike and carry their own equipment and their wilderness experience is not dependent upon using pack stock or riding horses.
- Persons wanting horseback rides – but their experience is not wilderness dependent. For these individuals and groups, the horseback ride itself is the desired activity and a wilderness setting is not needed for this experience.
- Persons owning private stock suitable for wilderness travel who also possess the skills and knowledge to properly use them in wilderness.
- People utilizing commercial pack stock to transport equipment that is not legal in wilderness (e.g., chain saws, bikes).

Decisions related to categories determined “not needed or necessary” were based upon either: (1) lack of demonstrated need, (2) activities not dependent upon a wilderness setting, or (3) needs that clearly conflict with wilderness protection standards.

**Rationale for Categories of Need**

Many categories of need are fairly straightforward and evident, such as persons who require pack stock to transport them and their equipment and supplies because they are physically not capable of hiking and/or carrying camping equipment. As described in the trends section below, this is a large and growing segment of the American population. While this category may be the most obvious and compelling group of persons needing commercial pack stock, they are not the only group needing services for their wilderness access or recreation experience. As previously mentioned, many other individuals, families, groups, agencies, universities, organizations, contractors and tribes also require pack stock assistance to transport people with special needs, to carry bulky and heavy equipment and supplies, and to realize their desired wilderness



experience. Without commercial pack stock support, many of these appropriate wilderness activities would not be possible for those individuals and groups listed.

Persons who may be able to walk and carry their own equipment, but elect to experience wilderness with riding and pack stock—the historical “Sierra Pack Trip”—are also in need of commercial pack stock services in these wilderness areas. Most private citizens wanting this kind of wilderness experience do not have the animals, specialized skills to handle pack stock, or equipment to achieve their desired wilderness experience, and therefore need the services of commercial packers. The history and practices of every wilderness area is different, and Congress clearly recognized that besides wilderness recreation, another important purpose of wilderness was the study and experience of its history. For most of the Sierra Nevada wilderness areas, using pack stock is a historical practice and part of the wilderness experience for many past and present Americans. The use of pack stock, and the packing profession, is deeply rooted in the history of these wildernesses. The “Sierra Pack Trip” is an appropriate and historical form of primitive recreation for these wildernesses; and, the only way that individuals can have this experience is with commercial services, unless they have their own stock.

Some potential consequences to the wilderness environment and administration of these areas in the event the agency determined that “The Sierra Pack Trip” category of need was not appropriate or needed, is significant. People would still have the need and right to use “private” pack stock to realize a desired “pack trip” or “day ride.” They could buy, rent, or borrow animals for their access and use. While some private stockowners (such as Backcountry Horsemen) have the knowledge, skill, and ability (as well as commitment) to practice proper stock ethics in a wilderness setting, most urban and even some rural visitors needing commercial pack stock support for their “pack trip” or “ride” experience do not. (The stock impacts and damages to the wilderness character from many more visitors using private stock rather than using commercial packer’s service would most likely be significant and unacceptable.)

The Wilderness Act does not specifically define or limit who can or cannot use wilderness areas. It states that wilderness areas “shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness....” The Act also specifies that wilderness, “has outstanding opportunities for solitude or a primitive and unconfined type of recreation” and “shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use.” Forest Service wilderness policy (FSM 2320) states, “Consistent with management as wilderness, permit outfitter/guide operations where they are necessary to help segments of the public use and enjoy wilderness areas for recreational or other wilderness purposes.” In light of the Wilderness Act and Forest Service guidance, all need categories identified and stated above (except those identified as not needed) are determined in this analysis to be appropriate categories to receive commercial pack stock services in the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses. These service and activity needs are consistent with the outfitting and guiding services provided to the public in these areas before and after the 1964 Wilderness Act, and are consistent and compatible with the intended mode of primitive travel (foot and horseback) appropriate and envisioned under the Act.

## Part VII. 2005 Commercial Pack Client Survey

During the summer of 2005, a survey of commercial pack clients was conducted. The intent of the survey was to determine whether commercial pack stock clients were engaged in activities proper for the wilderness and to quantify the level of need for commercial pack stock service.

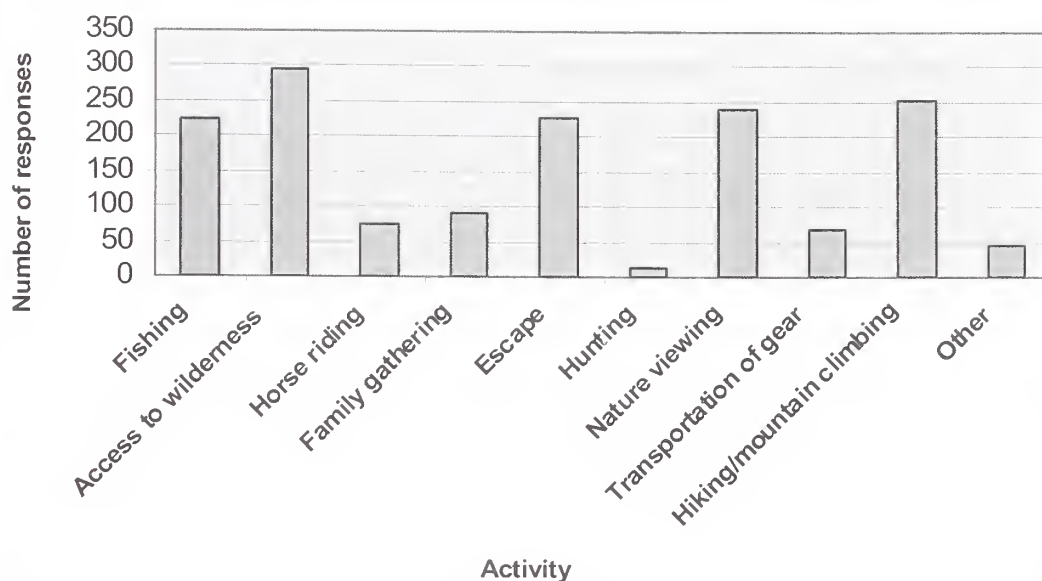
The survey instrument was developed and field tested at several pack stations in July 2005 (see Attachment 1 for a copy of the survey instrument). In early August 2005, the survey was mailed to 537 pack stock clients from 2004. The names and addresses of the clients were gathered from the Inyo and Sierra National Forests' Wilderness Permit Databases. The clients contacted were the individuals who identified themselves as the group leader and provided their names and addresses when receiving their wilderness permit. In 2004, 4,015 overnight clients were serviced by commercial pack stock. The average group size was three individuals, so approximately 1,338 commercial packing groups used the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses. A total of 346 surveys were filled out and returned to the forests. In all, data was available from 346 out of the 1,338 commercial groups that utilized commercial pack stock in the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses (approximately 40% of the groups). This sample size provides a more than 95% confidence level; that is, we can be more than 95% sure that the results from the 346 respondents accurately reflects the results that would have been obtained by hearing from all 1,338 groups that utilized commercial pack stock services in 2004.

### Results of the Survey

#### Survey Results for Test One: Public Purposes of the Wilderness Act

Test one analyzes whether commercial pack stock services are supporting activities that are proper in the wilderness and fulfill the public purposes of the Wilderness Act. The 2005 Commercial Pack Client Survey was used to identify the activities that people engage in when using commercial pack services to access the wilderness. Of the 346 survey responses, the overwhelming majority included activities that are consistent with fulfilling the public purposes of the Wilderness Act (Figure 4 shows the responses from the survey). The most popular activities identified as being a purpose of the wilderness trip were fishing, hiking/mountaineering, and nature viewing.

Figure 4. Survey results: activities on pack supported trips



Another question asked in the survey: “Could you have met the purposes of your trip by taking a horse trip outside the boundaries of wilderness areas?” reveal the extent to which these activities (for the survey respondents) are wilderness-based. Out of the 339 surveys that responded to this question, 276 or 81% reported that they could not have met the purpose of their trip on a trip outside wilderness.

The survey shows that members of the public are using the services of commercial pack stock operators to enjoy activities that are proper in the Wilderness. Further, survey respondents report that the purpose(s) of their wilderness trip can not be met by taking a trip outside wilderness. The next issue to examine is to analyze how many commercial stock clients fit into one of the categories of need which will be introduced in the next section.

### Survey Results for Test 2: Need for Commercial Packing Services

The section will focus on the need for commercial services by looking at whether commercial pack stock clients surveyed in 2005 fall into one or more of six categories of need for these services. Results from the 2005 Commercial Pack Client Survey were used to quantify the need categories described above. A question from the survey (“Why did you choose to use pack and/or riding stock for your wilderness trip?”) was used to determine the need category (if any) the group fit into. This survey focused on groups, not individuals. It is both impractical and impossible to determine whether each individual of a group utilizing commercial pack stock matches an identified need category. The survey was mailed to group leaders and answers from the above question determined whether the group needed commercial pack stock to accomplish the purpose of their wilderness trip. The results from the survey are shown below in Figure 5.



Figure 5. Survey results: level of need

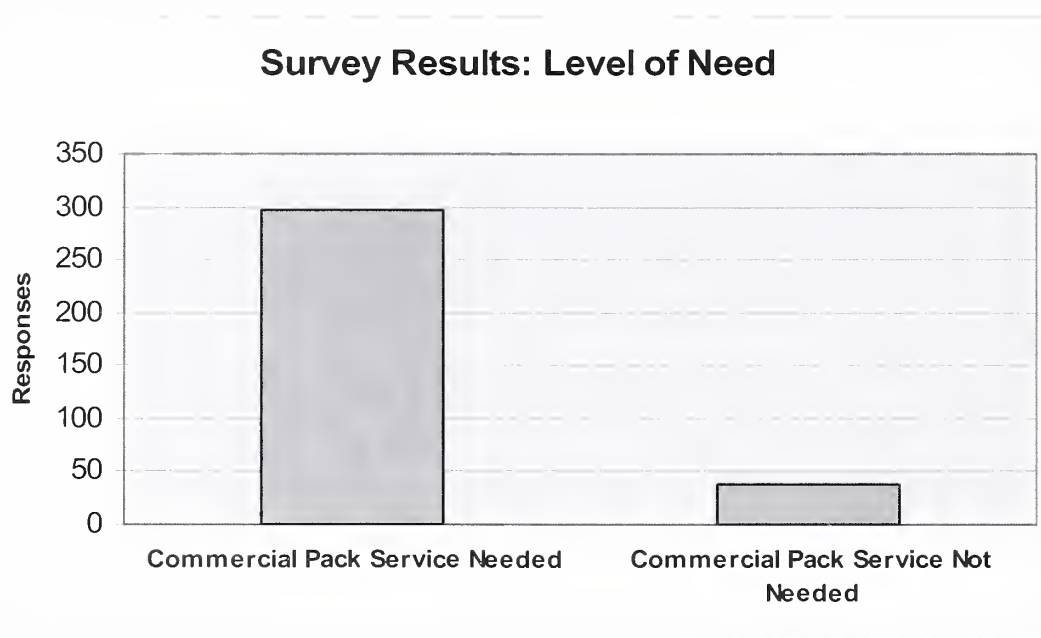
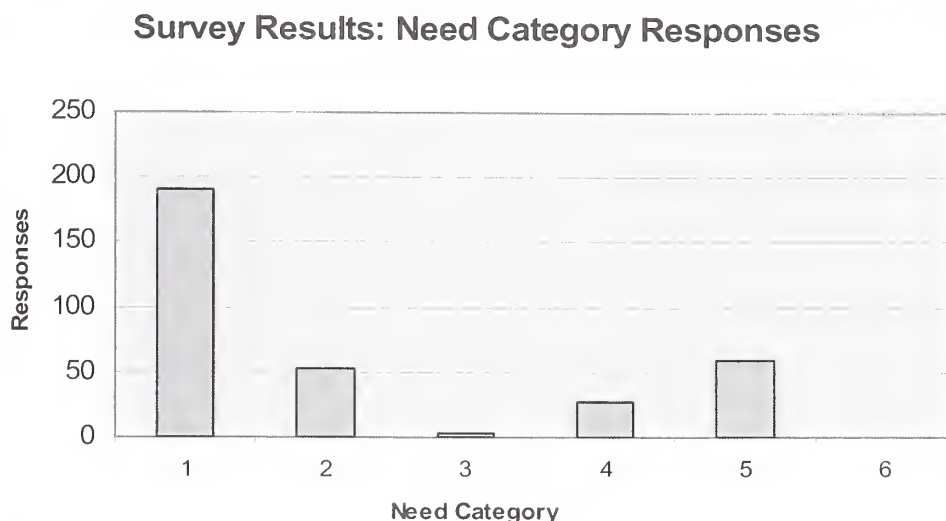


Figure 5 shows that the overwhelming majority of survey respondents needed commercial pack services to accomplish the purposes of their wilderness trip. A total of 336 surveys provided sufficient information to determine whether commercial pack stock service was needed. It was determined that 298 or 88% of the groups needed commercial services. Figure 6 shows the breakdown of groups into the five need categories.

Although the majority of responses indicated a need for commercial services, some survey responses were clearly from groups and/or individuals that did not need the service to access the wilderness. Responses in the "not needed" category were from individuals who indicated that they were physically capable of carrying their own pack, but used commercial pack service for convenience or to save time. One response, for example, said that commercial pack services were used because the wilderness user "was lazy and could afford it." This is an example of a client who was not placed in one of the six Need Categories. These types of responses, however, were the minority; most of the responses indicated a definite need for commercial pack support for their trip.

Figure 6. Survey results by need categories



\*Category 1 includes persons with physical limitations

Category 2 includes persons with equipment too bulky or heavy to carry

Category 3 includes persons hunting deer

Category 4 includes persons desiring a wilderness pack trip experience

Category 5 includes individuals able to pack their own gear but traveling with someone in Categories 1-4

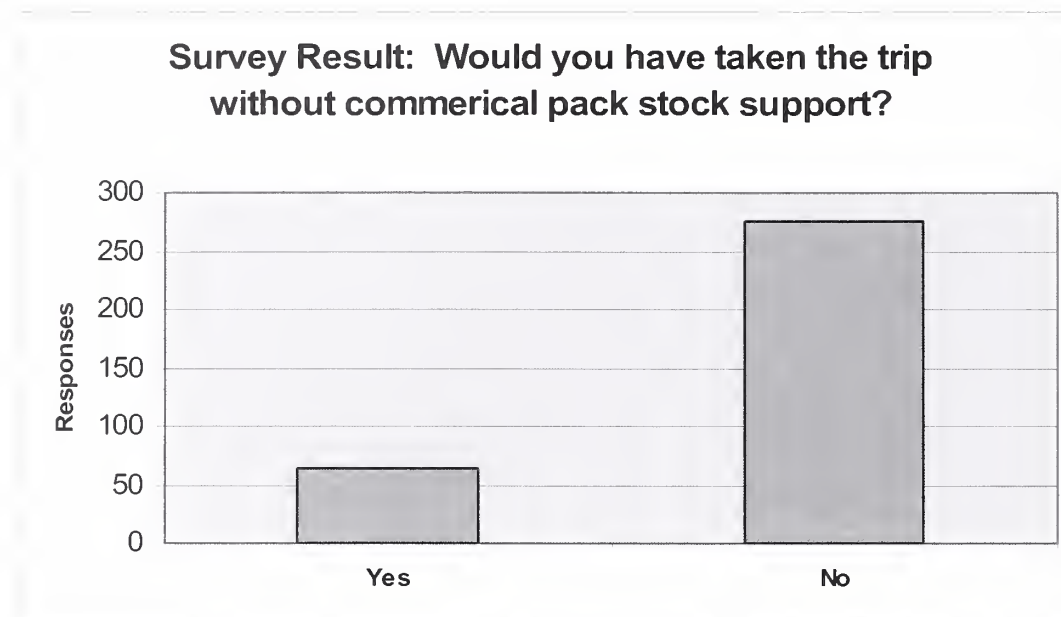
Category 6 includes Native American traditional walks or gatherings

\*\*The numbers in Figure 6 total more than 298 as some groups fell into more than one category.

Category 1, the Need Category related to physical need, was the most common reason cited for securing the services of a commercial packer. Many of these respondents reported that they were elderly or had some physical limitation that made it all but impossible for them to carry a backpack and access the wilderness on an overnight trip. A number of these people also indicated that while they were backpackers at one time, commercial pack stock now provided an essential service for them. Without stock, many of these people would not be able to access the wilderness. Another common response came from group leaders who indicated that they were bringing their entire family, including children, along on the wilderness trip. Many of these respondents said that commercial pack stock support were crucial if children were to be included in the wilderness trip.

The results from another question from the survey ("Without commercial services, would you have taken the trip?") reinforce the need for commercial services for some of these groups. Figure 7 shows the results of this question.

Figure 7. Survey Result: Would you have taken the trip without commercial pack stock support?



Interpreting the responses to this question were a bit difficult as some individuals answered for themselves while others answered for the groups as a whole. For example, some respondents stated that they would still have taken the trip without commercial pack stock; however, other members of the group would not have been able to. Nevertheless, the results of this question reinforce the overall result of the survey: the overwhelming majority of groups that currently utilize commercial pack stock support need this service for their wilderness trips.

### Wilderness Day Rides

Wilderness day rides were not included in the 2005 Commercial Pack Client Survey. Instead, pack stations were visited during the summer of 2005 and anecdotal information was gathered on this activity. During the course of this analysis, several aspects of wilderness day rides became clear. First, the vast majority of wilderness day rides only enter a small portion of the wilderness. The Rainbow Falls Day Ride in the Mammoth Lakes area, for example, only enters wilderness for a few hundred feet and is mostly in Devil's Postpile National Monument. It is, however, considered a wilderness day ride. This ride is quite popular and accounts for more than 30% of all wilderness day rides on the Inyo National Forest. Examining use data shows that this is fairly typical of wilderness day rides: most of these rides do not penetrate particularly deep into wilderness. Most, if not all, of the day rides enter wilderness for only a mile or two or less. The reasons for this are many, but perhaps most significantly, individuals looking for a day ride will not be able to or are not interested in being on a horse for more than a couple hours. Typically, day riders are the least experienced of commercial pack clients and they typically are not interested in more than a two-hour ride. Most of the so-called wilderness day rides are in the front country with a relatively small percentage of the ride entering the wilderness. For many front country trails, the wilderness boundaries are miles from the trailhead and day rides only enter the wilderness for a relatively short distance.

Another aspect of wilderness day rides is the clientele and their need for the service. Anecdotal observations at pack stations reveal that a sizable percentage of day ride groups are made up of



families with younger children. Day rides provide these groups with a new experience and are important in exposing younger generations to the forested environment. The mode of transport (i.e., horses) appears to be an important consideration for day rides. Likewise, there is a need for a scenic destination for the trip. The proximity of the pack station to wilderness boundaries makes it nearly impossible for the rides to avoid wilderness altogether. Although not tracked in a formal survey, it appears as though many of the day riders would fit into Need Category #4 (persons wishing to have a wilderness-based horse back ride).

Currently, there are approximately 4,000 day rides that enter the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses. As stated earlier, the majority of these rides only briefly enter the wilderness. Given the limited entry of these rides into wilderness, there are few, if any, environmental effects associated with these rides. In fact, day rides constitute one of the least impacting methods of experiencing wilderness for wilderness visitors.

The demographic trends described below (particularly trends indicating an aging, more urban population) point towards an increased need for day rides in the future. Therefore, there is a need to continue to provide a range of day rides that will accommodate an expected increase in the need for this service.

### **Survey Conclusions**

The results of the 2005 Commercial Pack Client Survey indicate that the vast majority of clients are utilizing commercial stock for activities that are proper and consistent with the intent of the Wilderness Act. The overwhelming majority of the groups that utilize commercial stock are in one of the identified need categories and would not have been able to take the trip without the service. Commercial pack stock provides an essential service to the individuals and groups that utilize it; it is likely that most of these individuals and groups would have limited or no access to the wilderness without commercial pack stock services.

## **VIII. Current Constraints on Meeting the Full Public Need for Commercial Pack Stock Services**

It is important to note that one of the purposes of this Needs Assessment is to provide a sense of what the overall public's need for this service is. A number of other considerations should be factored in when arriving at this overall level of need. It is not reasonable to conclude that by pure chance the Forest Service has arrived at a level of service that is nearly equal to the public's need for commercial services in the Ansel Adams/John Muir Wildernesses. Given the results of the survey and conversations with commercial packers, it is more likely that the public's full need for these services is not being met. The survey showed that the overwhelming majority of current use is proper for wilderness and is needed by the public to access the wilderness areas. In 2004, 4,015 clients were supported by commercial pack stock services in the wilderness. As the survey revealed, nearly 90% of the groups brought into the wilderness fit into one of the identified categories of need. Given the high percentage of current users of commercial pack stock that fit into a need category, it would be logical to assume that there is a certain level of public need for this service that is not being met and indeed based on conversations with pack station operators, it is likely that the full public need for these services is not being met.

Current restrictions on commercial packing in the wilderness have contributed to an inability to meet the full public's need for these services. Commercial pack operators have identified various restrictions that limit the ability of the business to meet the public's need for commercial service, including group size, quotas, limitations on the number of stock per party, and grazing restrictions. Group size particularly was a restriction that commercial packers say limit their ability to meet the public's need. While in the past packers would service larger organized groups such as church groups and Boy Scout groups, the party size limitation has all but eliminated this type of use. Grazing restrictions have also limited the ability of packers' to provide multiple day full-expense trips. According to one packer, these are the trips that are most popular with the public and represent a significant unmet need. Commercial packers indicate that every year restrictions on their operations require that they turn away clients that they cannot serve, but who nonetheless would fit within one of the need categories identified above.

The logistics of operating in a short season also limits the packer's ability to meet the full need of the public for these services. According to Eastern Sierra Packer's Association President, Dave Donnell, "Everyone wants to take a pack trip during the holidays, weekends, and month of August. We turn away people because we don't have the logistical capacity to handle them and the Forest Service limits how many people we can accommodate with quotas, service days, and other regulations."

Furthermore, there is likely a sizable group of individuals who need commercial packing services and fit into a need category but are unable to afford the service. As discussed in the Final EIS, Economics section, the costs of these trips have escalated over the last several years.

Commercial packers indicate that restrictions, particularly restrictions imposed by the Court, have caused an increase in the price of various services. Commercial packers say that the public has started to balk at the prices of these trips and each year people do not book their trip because they are unwilling or unable to pay the price for the service. It is impossible to determine the number of people that are unable to afford the service each year and "needed" the service to access the wilderness. Given that nearly 90% of current use fits into one of the Need Categories, it is logical to assume a sizable percentage of individuals are unwilling or unable to pay for the escalating price of these services. Still another unaccounted group is those that never make contact with the commercial packers because upon receiving a brochure or some other notification of the price of commercial packing services, they realize that they are unable or unwilling to pay the asking price and they do not pursue the trip any further. It is impossible to determine how many people are in this group, but again it is logical to assume it is a sizable percentage.

Another factor to consider when determining the need for commercial packing services is the relatively short season in which these operations have to operate in. The "need" for packing services will vary from year-to-year, depending on seasonal conditions. In a season such as 2005 that had a lingering snow pack well into July, commercial packers will be limited on the number of people that can be serviced. In other years, the season may start early and end late. The best way to account for these seasonal fluctuations in business is to identify a level of need as a range, rather than settle upon a specific number.

## IX. Trends Affecting Need for Commercial Pack Stock Services

This section discusses trends and patterns potentially affecting the need for commercial pack stock services now and in the future.

1. According to *Demographic Change & Recreational Activity Trends* (2005) by Gary T. Green, University of Georgia, and Ken Cordell, US Forest Service, Athens, GA, and Becky Stephens, University of Tennessee:

- Population is rapid growing and some groups will literally explode in numbers.
  - Incomes, educational levels, and average life expectancy will all increase by 2020.
2. Association of Partners for Public Lands (APPL) compiled in 2004 from websites, reports, and surveys of members and agency partners reported the following trends and patterns information:
- Consumers are seeking out uniquely different experiences when they travel, yet expect certain standards of destinations, tour companies, lodging establishments and transportation. 65% of travelers are city-dwellers living in urban areas with populations of 500,000 or more. Among those visiting a National Park while traveling in the last five years, 75% stayed overnight or within 10 miles of the parks on their most recent trip. (National Geographic Traveler and Travel Industry Association)
  - 50% of American adults have taken an adventure vacation in the past 5 years. (E. Sheffield, California State University, Chico)
  - Aging baby boomers seek easier ways of recreating but have more money to spend, resulting in desire for greater conveniences like full hook-up campgrounds. (APPL 2004 agency survey)
  - Public lands will see more 55+ visitors and more “escapees” from cities, who will want more services. Many of these visitors will be willing to pay for a quality experience. (APPL 2004 agency survey)
  - The population of California is projected to have the largest net increase in U.S. population. By 2020 it is projected to increase by 31% compared to 2000, with a 58% increase in Hispanic population, 55% increase in Asian/Pacific Islanders, a 29% increase in Native Americans, a 20% increase in African Americans, and a 4% increase in persons of European decent. By 2030, Hispanics will comprise 43% of the state’s population. (E. Sheffield, California State University, Chico)
  - The median age in 2000 was 35; by 2020 it is projected to be 38. (E. Sheffield, California State University, Chico)
  - Baby Boomers are now moving into their retirement years, leading to increased leisure time and greater demands on parks. They are the mobile generation of the next 20 years. (Trends in Demographics and information Technology Affecting Visitor Center Use, NPS, 2003)
  - The over-50 population is expected to grow by 18.3 million people over the next ten years. (Independent Sector)
  - People continue to live longer. By the year 2025, 60 million Americans will be 65 or older. (Aging Americans: Stranded Without Options)
  - Increased urbanization of America, and decreasing rural populations. (APPL 2004 agency survey)



- In 1994-95, more than half of the older population (52.5%) reported having one or more disabilities. One-third had at least one severe disability. Most older persons have at least one chronic condition and many have multiple conditions. The most frequently occurring conditions per 100 elderly in 1995 were: arthritis, hypertension, heart disease, hearing impairments, orthopedic impairments, cataracts, sinusitis, and diabetes. (AARP)

### **Trend Implications Related to “Need For” Wilderness Commercial Pack Stock Services**

Given the trends provided above, the following will likely affect the need for commercial pack stock services in these wildernesses: a population that is increasingly urban, less connected or educated about the outdoor world; significantly growing (especially California) and aging; people less physically fit than the past; and, more often temporarily, if not permanently, physically challenged and limited. The American population’s need for outfitter and guide services will be even more important in the next 10-20 years to enable visitors in need to access and experience their public lands. The Forest Service cannot provide these services to the public to meet this need.

## **X. Quantifying the Need for Commercial Pack Stock Services in the Ansel Adams and John Muir Wildernesses**

It is very difficult—if not impossible—to provide an exact number that captures the total need for commercial packing in the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses. This section instead will provide a range that is needed to meet the future need for these services. This range will include a number of components: the current level of need, the need that is not currently being met because of various restrictions that limit the commercial packers’ ability to provide service, and future demographic trends. Based on these three components, current levels of service are not sufficient to meet the public’s current and future need for commercial packing in the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses.

### **Overnight Clients**

#### **Current Level of Need**

As the 2005 Commercial Pack Client survey showed, approximately 90% of the current level of commercial use is needed to meet the public’s need for these services. Given the 2004 level of 4,015 commercial clients, it is estimated that **3,613** of these clients truly “needed” the service in the context of this Needs Assessment.

#### **Unmet Need**

As described in Part VIII, there are a number of factors that act to limit the commercial packer’s ability to meet the full public need for these services. Some of these factors include restrictions and limitations placed on the commercial packers (e.g., group size, quotas, stock number limitations etc.), while other factors include seasonal limitations on business including weather and snow conditions. Additionally, court-ordered restrictions and other factors have caused the prices of these services to rise considerably over the last five years. Based on conversations with commercial packers, it is estimated that there is a need 25-50% above the current level that is not

being met. Discussions with commercial packers are the only way to really get a sense of how much public need is not being currently met. These discussions are compared with the Forests' knowledge of commercial operations and were subject to professional judgment to provide the most accurate assessment of unmet need.

It is estimated that unmet need represents an additional **1,004-2,008** clients that need commercial packing services.

### **Demographic Trends**

Perhaps the most difficult portion of this need quantification involves quantifying the future need for commercial services given the obvious demographic trends. Given demographic trends, there will be an increased need for these commercial services in the future. Exactly how much of an increased need will result from these demographic trends, however, is difficult to determine. Again using professional judgment, it is estimated that demographic trends will result in a 75-100% increase in need over the current level of service that is provided. This gain translates into a range of need from **1,265 to 2,008**.

### **Overall Need**

Given the three components described above, the level of need for commercial services ranges from **7,329 clients to 9,234 clients**. Again, this range is an estimate using professional judgment of some factors that may essentially be impossible to quantify (e.g., unmet need and demographic trends). The need for these services will increase in the future; exactly how much the need will increase is difficult to say; thus the Needs Assessment provides a range of need.

### **Day Rides**

In 2004, there were approximately 4,000 day rides in the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses. Again, the term "wilderness day ride" is a bit of a misnomer as the vast majority of these rides only skirt wilderness and do not penetrate very far in the wilderness. Given demographic trends, it is expected that there will be an increase in need for these types of rides. Demographic trends are difficult to quantify, but again it is estimated that these trends will result in a level of need 35-50% above current levels. This results in a range of day ride need of **5,400 to 7,500 clients**.

## **XI. Extent Necessary for Commercial Services in the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses**

The results from the 2005 Commercial Pack Client survey indicate that the vast majority of commercial pack stock users are using the service to support activities that are proper for wilderness. Further, the level of need currently provided is likely less than what the public needs to access the wilderness area. Given demographic trends, it is likely that the need for these services will continue to grow in the future. The Needs Assessment has identified a range of need of **7,329 to 9,234 overnight clients**. The day ride need for these wildernesses is estimated to be **5,400 to 7,500 clients**.

It is the intent of this Needs Assessment to identify the level of commercial services that will meet the public's need for these services. As discussed above, this level is best expressed as a

range. To meet the requirements of the Wilderness Act, the level of need provided must also ensure that wilderness character is maintained in these wilderness areas. The challenge, then, is to settle upon the level that meets the identified range of public need and also protects the wilderness character of the area.

The *Trail and Commercial Pack Stock Management in the Ansel Adams and John Muir Wildernesses Final EIS* provides an analysis and disclosure of the expected environmental effects of six alternatives. These six alternatives provide various levels of commercial packing service along with different mechanisms for controlling that use. The Record of Decision that accompanies the Final EIS will provide the rationale for selecting one of these alternatives. This rationale will include an evaluation of the effect of the selected alternative on the wilderness character of these wildernesses. The ROD will also include a finding of compliance with the Wilderness Act for the selected alternative.



## Literature Cited

- Eastern High Sierra Packers' Association. 2000. Misc. On file, Inyo National Forest, Bishop, California.
- Farquhar, F. P. 1965. History of the Sierra Nevada. Berkeley: University of California Press.
- Dilsaver, L. M. and Tweed, W. C. 1990. Challenge of the Big Trees. Three Rivers: Sequoia Natural History Association.
- Jackson, L. A. 2004. The Mule Men. A History of the Stock Packing Industry in the Southern Sierra Mountains of California, 1776-1950.
- Livermore, Norman B., Jr. (Ike). 1935. The Tourist Packing Business of the High Sierra Region. Report (February).
- Livermore, Norman B., Jr. (Ike). 1947. Sierra Packing and Wilderness Policy. Sierra Club Bulletin, 36(5).
- USDA Forest Service. 1979. Minaret Wilderness Management Plan
- USDA Forest. 2001. Wilderness Management Direction for Ansel Adams, John Muir, and Dinkey Lakes Wildernesses Final EIS.

## Attachment 1: 2005 Commercial Pack Client Survey

Currently, the Inyo and Sierra National Forests are analyzing the effects of commercial pack station operations in the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses. A portion of this analysis involves the gathering of information related to the public use of commercial pack stock in the wilderness. Thank you for your assistance.

It would be most helpful if the survey is returned on or before **August 15, 2005**.

1. What wilderness area did you visit on your trip? ☐ John Muir ☐ Ansel Adams  
☐ Dinkey Lakes ☐ Not Sure  
Was this your first visit to a wilderness area? ☐ YES ☐ NO

2. Please describe the group that went on your pack-supported trip:

☐ individual  
☐ family  
☐ friends  
☐ organized group  
☐ other (please describe) \_\_\_\_\_

3. What type of trip did you take?

☐ day ride  
☐ full service (traveling trip, all expense)  
☐ spot (you ride in with packer and gear to site)  
☐ dunnage (you walk to site, packer takes gear)

4. What was the destination of your trip? \_\_\_\_\_

5. What was the purpose of your trip (check as many as is applicable)?

☐ fishing ☐ hunting  
☐ access to wilderness setting ☐ nature viewing  
☐ horse riding ☐ transportation of gear  
☐ family gathering ☐ hiking/mountain climbing  
☐ escape from every day routine, relaxation  
☐ other (please identify) \_\_\_\_\_

6. Why did you choose to use pack and/or riding stock for your wilderness trip?

\_\_\_\_\_  
\_\_\_\_\_

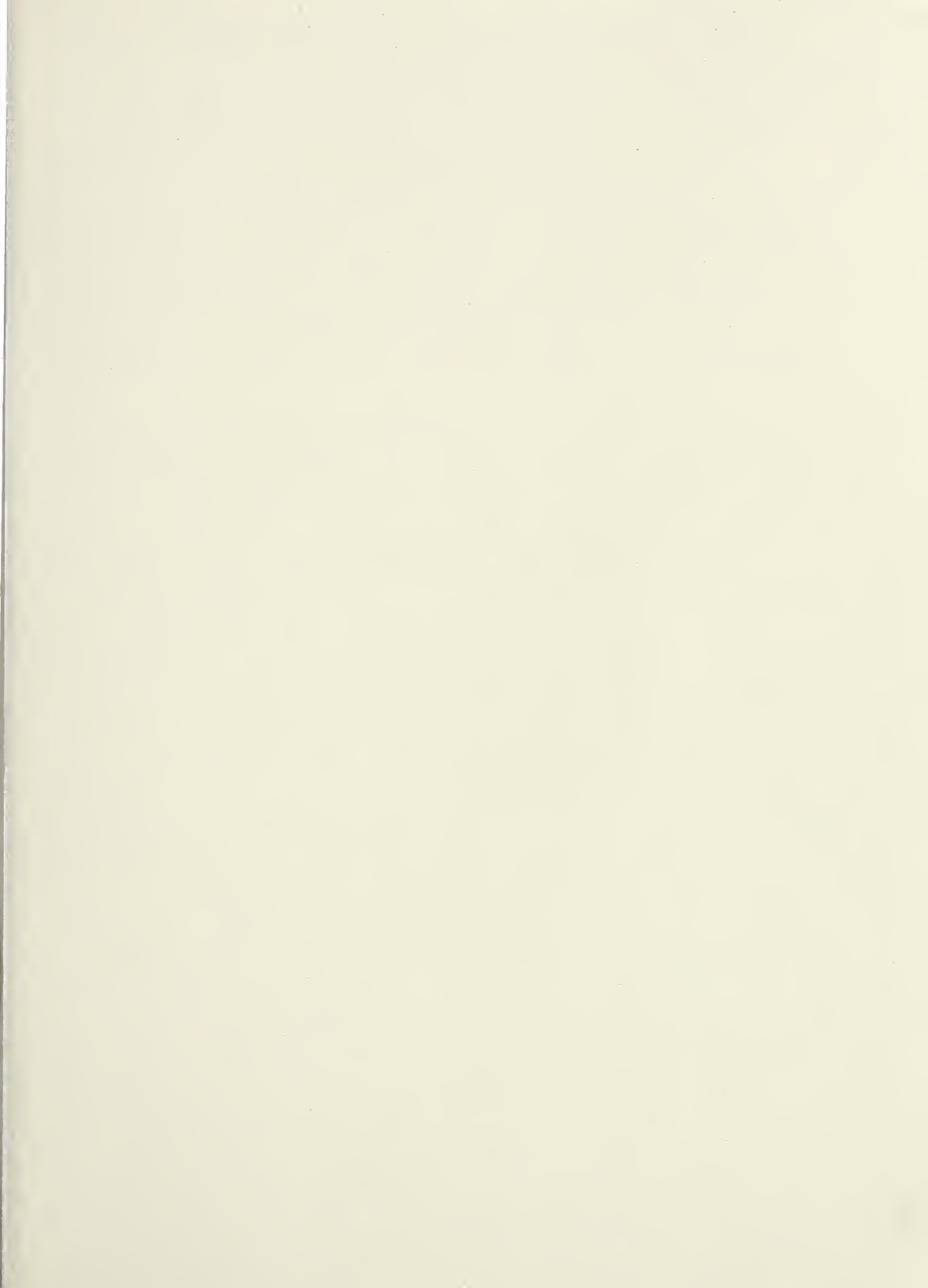
7. Without commercial services, would you have taken the trip? ☐ YES ☐ NO

Please explain

\_\_\_\_\_

8. Could you have met the purposes of your trip by taking a horse trip outside the boundaries of wilderness areas? ☐ YES ☐ NO Please Explain

\_\_\_\_\_





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